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ADDRESS, **BENJ. BRYAN, PUBLISHER,**
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**Surface-Manuring, versus Under-
Plowing.**

Endless are the discussions in Agriculture, as
in other departments. This is profitable; this
is necessary.

It seems to be still an unsettled point whether
manure should be plowed under, or applied to
the surface—though the majority lean to the
latter.

The truth is, both are good in their place;
and this is probably the secret of the discussion.
We know that to plow manure under is good for
some soils and some grains, and preferable to
surface manuring.

Where roots strike deep, there must be an
under fertility: and this fertility must co-extend
with the roots. Where the roots keep near the
surface, as in the case of the grasses, surface
manuring is certainly preferable. The difficul-
ty in the case of deep manuring, is with the
texture of the soil. If the ground is porous

and mellow, and withal sandy or gravelly, es-
pecially if dark colored, the heat and the atmos-
phere will reach to a good depth—the ordinary
depth of plowing—and the process of decompo-
sition will go on, and in such case act decidedly
to advantage. We believe no one will dispute
this.

Such is the ground for corn. It will give a
good and early start—what corn wants—and do
in a week what could not be done in two weeks
without the manure, if a good quantity was ad-
ministered. And it should always be remember-
ed that a week's gain in the spring, is a week's
gain on the frost in the fall; and not only that,
corn, early ripened, is better than if ripened later,
even if both are thoroughly ripe. To linger
along with dubious weather, now cold, now hot,
now wet—is unnatural and hurtful. There is
not that brightness of gloss and solid substance
which you find in early matured corn.

All this can be better secured by plowing un-
der in the proper soil (and corn soil is generally
the proper), than by surface-manuring.

For as the roots of corn extend, manure will
be reached by the elements of decomposition.
The same influence applies to both. Warmth
and air are requisites for corn, and so necessitives
to the decomposition of manure. So with roots.
But not so with the grasses, except the coarser.
Timothy loves the surface. It thrives under
top-dressing, its roots coming in direct contact,
both with the juices and the sap—and they
reach down somewhat to the cooler stratum
of the clay, and sip of its sweetness and health-
ful strength. They can bear the coldness as
well as the heat.

It is the clay that should always be mixed
with manure when applied to grass unless the

soil contains it. Lime also should be added. Barn-yard manure alone is too rank for the grasses. They feed too greedily upon it. But the lime and the clay, and a little salt added—better still, ashes—will have a material effect in sweetening the juices, the nutriment of grass, especially when feeding on the higher, purer air of hills, or where the wind has free access.

Still better than all, is an early start, and a thick bottom, with a rather slow but uniform growth, so as to have the stem light, the juices concentrated (refined), and yet the same quantity of grass bulk that a coarser and more rapid growth would produce, a growth that will not lodge, upheld by the lime and sweetened by it. This is the grass that brightens the eye, both of the harvester and the stock, costing less manure, though more variety, whose fertility is more durable; for lime alone, when under the influence of the sun (near the surface), is generally sufficient manure for grass. There is no such healthy, nutritious grass as lime-fed grass. But keep the lime near the surface. So with wheat. It improves the flour, the bread. The same wheat grown on an upland, in the face of winds, makes better, sweeter, whiter bread than that grown in low, rich places—on alluvial soil. And with proper care, the same weight to the acre may be raised on the upland. We have seen the most productive wheat crop on quite a steep hillside.

Barn-yard manure has a powerful influence on vegetation. It is rapid as the solar ray with which it loves to deal. It will not do for the mild, succulent plants. The cereals are little though somewhat rankly affected by it. But when modified by the alkalies, the adjustment is a most desirable one. Thrift is added to the other good qualities.

Lime is perhaps the best fertilizer known to agriculture; not the swiftest (for at first it is slow), but the surest and most general of manures. Also, one of the most lasting.

Sheep are attracted by lime manured pastures as the needle by a magnet. They seek calcareous ridges; they will know them dry, and leave the lowland green. But extend the calcis to the lowland, and they will follow the chalk, as if it were salt.

Of course, it can only be applied as a top-dressing, or slightly harrowed in. So in the case of wheat. So with the grains.

Corn wants the rank manure tempered with lime and then plowed under.

The same treatment should be given to orchards, to hops, to root culture. To give these

a top-dressing will benefit them but little.—They seek their strength in the under-soil, and top-dressing extends at best but a few inches, and not to the region of the long roots. These roots cannot be trained to follow the surface; the strongest manures cannot persuade them. Their nature is downward, not horizontal.

Now, in view of all this, is it not clear that exclusive surface-manuring will not do, and *vice-versa*? The dispute will never be settled in favor of one side. It must be settled where the truth is—in favor of both sides. Why discuss when the fact is so evident? As there are different soils and different manures, so there must be different treatment. As well say corn will grow equally as well on clay as wheat; that surface manuring is not beneficial; and that depth has nothing to do with growth. This variety exists, and is a fact, if we would but see it; and if we would succeed, we must govern ourselves accordingly. But whether writers differ or not, farmers will continue to practice both with profit.

TWO STRINGS TO THE BOW.

It is the practice of large farmers, in some parts of the country, to devote their entire energies, and the resources of the farm, to only one or two crops annually. At the extreme South, it is cotton or sugar; in other States it is corn or tobacco. At the West, it is often wheat or corn; and at the East, in some districts, it is hops. In Ireland, the potato crop is the main reliance of the hungry population; and when that fails, famine stares them in the face. England relies so much on her grain crop, that a failure of it begets a panic.

This plan works well, at home and abroad, provided the season is entirely favorable to the particular crop. But untimely frosts will come, notwithstanding our plans and expectations; insects will revel in the immense fields, however valuable in prospect to their owner; unseasonable rains will fall; rust and worms, and manifold other evils will beset us on every side. And when the calamity comes, it is a great one. We have intrusted our fortunes all to the keeping of one frail boat, and when that goes down, all our hopes are wrecked. Who does not see that in this course of farming one is incurring too great a risk? It is like investing one's whole fortune in a single kind of railroad stock, and that very unreliable. It is a sounder policy to distribute one's chances over a wider surface. It is far safer to raise three or more different crops; then, if one or more fail, there is something to fall back

upon. It is very true, that this does not make so great a show for an ambitious farmer. The proceeds do not come in all at once, in so large amounts, as when a single great crop is gathered and sold. But in the long run, the proceeds are larger, as they certainly are surer. It is better to have five years of moderate and regular profits, than one year of large gains followed by four years of losses. Better, so far as the mere money results are concerned; better for one's habitual peace of mind, and better for one's morals.

When the mania for any kind of speculation prevails in the land, a few large fortunes are made, but many men are ruined. Many become suddenly rich and then as suddenly poor. Sagacious and observing financiers tell us that the most successful and sure way to amass property is to avoid all unnecessary risks, and to be satisfied with steady and small gains. Apply this to agriculture. Well has one written: "A farm which depends for its profit on butter, fruit, cheese, timber, cattle, hogs, corn, wheat, potatoes, flax, etc., makes, perhaps, but a little on each crop; but the rains which come in *drops* are useful, while those that come in *torrents*, and raise freshets, leave great mischief behind."
—*Am. Agriculturist*.

THE SEEDY YOUNG FARMER.

The farmer, in beginning his career, must dispossess himself of many prejudices—prejudices formed in his early experience. What he *thinks* to be fixed facts, must be surrendered (though they seem to be inevitable) to what *are* fixed facts. He must give up his pleasing delusions, his old-fashioned notions of routine. In a word, he must submit—submit to be taught—submit to become a new man as it were, by giving up the old inveterate loves, and take to even new-fangled things, as he deems them. And he will never do this unless he is intelligent. A boor can never be a farmer.—He will skin the earth from year to year, and believe in the lasting virtue of solid earth, his manures taking legs with each rain and enriching other men's fields. Well for him if he has a deep, rich soil. This will carry him through a generation. And then we have hopes a better era will dawn upon him, or at least upon his children.

The country is over-run, (as with weeds,) with such farmers—honest men enough, but ignorant, prejudiced, superstitious, believing in the moon and in the almanac, and basing

actual ventures upon them. And you can't persuade them out of it. It is like taking away a part of self; and that they do not like to part with. *They "know."*

Laziness has sometimes much to do with this knowing. Then it is hard to correct a man. His farm will be weedy, his—but why enumerate? It is the old thing over and over, as Thackeray says of Telemachus, he will leap to the sirens, the bawling lad. So the lazy, ignorant farmer will stick to his weeds. He grows excellent crops of them, and is not even much ashamed. "The grain did not do so well, but then the season was backward, and we need rain." And he looks at the sky, as if he would reproach it. His clothes hang heavy upon him. His very dog is awkward, and his children (he has a score) are dirty and quarrelsome—his wife, if he yet has any, is a scold, from necessity. His pigs squeal—they always squeal, though louder at times.

It is almost a wonder that water runs on such a man's premises—and is clear and fresh; but it is there waiting for the future coming owner; a stereotyped fact, with the farm itself, though flowing where weeds and great briars bear such hideous sway, where thistle-downs and cobwebs are on the wing as if to escape a conflagration.

Fences! they are the dress of the farm; like the man's, shabby; easy of transit to the man, which is a consideration; and—

His cattle—beasts—beasts of burden, and fence-breaking beasts, hopped, and haltered, and poked.

Pigs—in the yard, in the garden, in the house, where Tray fraternizes with them. We have seen this. We have seen them run out with a rush, raising a dust. And there was a human wife in the house, and children ("brats"), taller than the swine, otherwise of them—more defiled—the future farmers? No.

And all this was on the clean earth, intended for a farm.

But its time is coming—the farm's.

"Already Nature here is putting on her bloom," of wild flowers and weeds;

"Soon shall these hills and vales be overgrown" with moss—already it is creeping;

"Creeping where no life is seen."

And yet this man votes, and talks about freedom and liberty of speech, and goes to church (if the hour is eleven—he getting there at twelve—his clock backward like himself).

But he eats well, and sleeps soundly and long, and quotes Richard: "Early to bed and late to rise, makes men healthy, happy and wise."

He has read Richard, you see, at least he has almanacs hung up on the nail: quack almanacs, keeping quack time with the quack clock, and the buss of flies which go in swarms,

"Out and in, through the window-pane;"

and there he has his hat, when he has it not on his unkempt head.

This is the farmer you sometimes meet: too often. Each one will recognize him. Every neighborhood has a copy. It is the young hopeful who began his career at the commencement of this article. And here we will leave him taking "care" of his farm, till, in turn, his farm will take care of him.

LEACHED ASHES.

Prof. Buckland, the able editor of the *Canadian Agriculturist*, says:

"Wood ashes always contain a considerable amount of carbonate of potash, lime, etc., and are consequently very beneficial to such plants as require large quantities of these alkalis, such as Indian corn, turnips, beets and potatoes. Leached ashes have lost much of the principal alkaline salts and have been deprived of the greatest part of their most important soluble ingredients; still they must not be regarded as an unimportant fertilizer, and other matter which they contain is always more or less beneficial to the soil. Unless the land is well worked and contains sufficient organic matter, we should not consider ashes, whether leached or unleached, as alone adequate to the production of a good crop of wheat, turnips or corn."

There is something about old leached ashes that we do not understand, though we have given the subject considerable attention. We have seen instances where old leached ashes have had an excellent effect on wheat, while unleached ashes seemed to do no good. We have thought that perhaps the potash and soda which had been washed out, were replaced by ammonia and nitric acid from the atmosphere. The subject is one worthy of investigation. At all events it is certain that leached ashes frequently have a very beneficial effect; and if the above hypothesis is true, the older they are the better.

FROZEN IRON.—Iron is affected by the frost; steel more; and cast iron most of all. When reduced to a very low temperature, it is remarkable how brittle the latter is. We have known the point of a plow-share snap off by merely raising the back part of the plow.—Hence, boxes and wheels of threshing and other machines should be carefully handled in cold weather. Thus, the wheels of locomotives, and rails on the track are often broken in very cold weather.

ON WHEAT GROWING.

In offering some suggestions on this subject just now, on the eve of the season for putting in this all important staple article, wheat, which is the staff of life, I am induced more from a feeling, that I owe a duty to this, the country of my adoption, than any ambition on my part to bring myself before the public.

Without further preliminary apologies, why I offer my opinion and advice, having paid due attention to the quality and average acreable yield, from observation as well as newspaper accounts, leads me to assert that the yield would be doubled, at least, if properly put in. It must be admitted that England and Ireland grow heavy crops of wheat, oats, barley and cereals. When I speak of England, I only know through others; but of the produce and yield of prime land in Ireland, I beg to give information that will surprise many farmers, what the yield on many farms in Ireland is. In England, grain is counted by the quarter, but in Ireland it is computed, in some places by the bag or barrel, and in some by the stone.

For instance, wheat, oats and barley, is bought and shipped by the bag or barrel in Cork, while in Limerick it is bought and sold by the stone of 14 lbs. A bag of wheat is 280 lbs., or 4½ bushels of 60 lbs. per bushel; a barrel of barley is 224 lbs., or 4½ bushels of 50 lbs. each; a barrel of oats is 196 lbs., or nearly 5 bushels of 40 lbs. each; a barrel of potatoes in the county of Cork, is 48 weights of 21 lbs. each, or 16½ bushels of 60 lbs. each: a tun of hay is 2,240 lbs., and all such articles, except timber. I give these statistics, in order to show clearly the difference between the produce of these Western States and the produce of the crops in Ireland. Hence I conclude, the generality of farmers are rather deficient both in the theory and practice of farming, and is why I presume to take it upon me to prove it. In the first place, as good wheat and as large potatoes, and as luxuriant vegetables come into this market, as to any in Ireland. Barley and oats are not so—on those I will say nothing at present. Then it follows if the soil in these States yield 8, 10 or 12 bushels to the acre; of sound, plump wheat, thereby proving it is a wheat growing country, why not try and make it yield 20 or 30 bushels? It can be done. I will prove it. This is an independent assertion, perhaps, not to be entertained by young farmers; when I say young, not as practical or experienced as I am in farming. This country has the advantage over Ireland for producing wheat, inasmuch as that it has less rain in summer, and wheat does not require rain after April. There of a wet harvest, which is mostly the case, sometimes it does not average more than 20 to 24 bushels per acre, while in a dry summer and harvest it averages 30, and on some farms more than 40 bushels. There, all wheat is kiln dried; here, it is fit for the mill off the field.

There, the straw is four to six feet long, and stout in proportion. The ear or head four to six inches long, having from fifty to eighty grains in each head, hence the yield. Here, the straw or stalk is as small as Hungarian hay, hence the shortness of the head, and the short average

yield. Why this difference? Simply because it is not sown in as practiced in old Ireland. Here the ground for the most part is first plowed, then the seed is scattered, then harrowed, and that ends it. There it is generally put down after a potatoe crop—first scattering the seed, after it is steeped in brine twelve or sixteen hours, then dried up mostly with chloride of lime, and if not convenient, turf or peat ashes, (wood ashes would burn it), it is scattered at the rate of two and a half to three bushels to the acre, carefully covering it with a small one-horse seed plow, with a narrow sod five or six inches wide, taking care not to put one sod over on the other, and all the seed three to four inches regularly under the surface, then running the harrow over every day's work. Here it is not done so. Fall wheat should be plowed in, and in doing so, carefully. One acre a day is a fair day's work with a small sod, and the board should be almost straight, so as not to throw over the sod on the other, and by such regular plowing of six inches wide and four inches deep, you will have a good crop, particularly if the snow covers it before a heavy frost, and should a hard frost catch it—although it cuts off the bud, it won't perish the root; hence, when the frost is gone it will shoot up a new sprout, and the farmer may calculate on a heavy crop. When harrowed in, or plowed in irregularly, some of the seed is six inches deep, while more remains nearly on the surface, and in harrowing it in none has two inches of covering on, while the three-fourths have but one inch and a half, while much of the seed is raked on the surface; it does not stand to reason that such slobbering sowing could yield either quantity or quality. Allow me to remark that an acre of wheat plowed in with a narrow sod is little short of twenty miles long. Sowing in wheat with a wide sod, or harrowing it in, is sure, except by chance, to yield a poor crop. Having satisfied my country friends that I am somewhat skilled in farming, I will, by way of codicil, give an idea of the best and most use that can be made of rye, and of rape also—as for rape it is not known here, but it is a profitable crop to feed cows on from the middle of March until the first of May. But as rye is known and grown by many, it may be useful to many to know that it is more profitable to cut it down for horses and cows than to thresh it for grain. If it is plowed in the same as wheat in October, it will be a fine growth on the first of April, when in place of leaving it to ripen, it might be mowed and given to the horses and cattle. It ought to be sowed thick and cut while green, as wanted. The ground it comes off of is good afterward for corn or potatoes; if manured, so much the better, as manuring makes potatoes dryer, thereby having two good crops in one year out of the same land. Every farmer ought to sow rye for his cows and horses. If I can spare time I will continue this course of farming, as experienced by me practically—on plowing and manuring; the most improved Irish method of putting in grain; lime as manure, and irrigation.

—[Mo. Democrat.]

D. B. MURPHY.

[Written for the Valley Farmer.]

UNDER-DRAINING.

At the late Fair held at Rochester, N.Y., various topics relating to farming were discussed in the evening by the dignitaries of agriculture.

Among other subjects under-draining was discussed at some length. It was thought by some that the importance of the subject demanded that it be made the object of the Society's labors for several years to come.

An instance was given of a distinguished farmer of Westchester county, Samuel Faile, who had gone among the old farmers of that county, and very thoroughly tile-drained a large farm that before was worth nothing, but now was the astonishment of the farmers, and was actually worth \$200 per acre.

H. T. Brooks, of Wyoming, dissented from the views of the gentlemen on the subject of under-draining. He said, in Wyoming county, his place of residence, it would not pay; and he would give a thousand dollars to any one who would find a farmer that would buy a drained farm at its increased cost.

To this, reply was made by a gentleman present, who had laid some fifteen miles of tile within a few years, who said that it cost about \$30 per acre to do it, and that the cost was always paid for within three years by the increased crops.

G. Geddes asked if there was any one present who had practiced under-draining, and had lost money by it—if so, he would please speak now. No one answered.

Mr. Baker, of Steuben county, was then called upon by Mr. Brooks (the objector to under-draining), and said that his land was very similar to that of Mr. Brooks, but that his experiments in under-draining had led him to very different conclusions. He had under-drained land that was worth about \$30 per acre, and increased its real value to over \$100 per acre, and in some instances \$150 per acre. This land he uses for raising sheep and grass.

The audience now became somewhat excited, when Solon Robinson inquired if this Mr. Baker was really the Mr. Baker that Mr. Brooks intended to call up in his favor.

The latter admitted he was. But he thought that for hill-land draining would not be profitable.

T. C. Peters thought that the object of his friend, Mr. Brooks, was to call out discussion. And he described the many localities, even on hill land, where the wetness of the soil had

caused the growth of coarse, wet grass, and where the operation would double or triple the value of the soil. He admitted that there might be much land that did not need it; but he did not think there was a farm of a hundred acres in the whole of Alleghany county, some portions of which at least would not be benefitted by draining.

Thus much for the opinion of these savans. And the opinion is important.

Of still more importance is the fact of draining itself, as we see it about us in so many sections of the country.

There are those who fail. Is there a province in all human operations, in which people do not fail? There is not one. In all the departments of life there are exceptions of success.

Viewed as a whole, as it should be, there is positive advantage in under-draining. The advantage is a well-paying one. In some cases great profits are realized. All depends upon the nature of the soil, and the character of draining. To drain all farms alike, will not do. In such a case it would be far from always paying. And this is too much the case. Here is where the evil exists, when it does exist. Some land requires double the number of ditches to the acre that other does. When the soil is shallow and has an impenetrable or clay sub-soil, the drains should be ten or twelve yards apart. Where there is greater depth of top-soil, or where the hard sub-soil is deeper, fifteen to even twenty paces will do. In such case the drain should reach just beyond the surface of the hard sub-soil; i.e., if the top-soil is twelve inches in depth, fifteen inches would drain the soil as readily as twice that depth.—Where, however, the soil gradually compacts, or where there is no distinct line of impenetrable sub-soil, the ditch should be deeper. In such a case, four feet will more thoroughly drain the soil than a lesser depth. In such case also the drains may be further apart.

There is but little dip necessary where the water has a fair chance to percolate or run off; for, remember, it is constantly busy, and a few inches are soon drained.

The best way is for a man to exercise judgment. If he is wholly unacquainted with the thing, let him call in some intelligent drainer. Then there is no difficulty, not any in the least.

Pretty certain may a man be that draining don't hurt the land. And he may be as equally certain that it benefits to some extent at least. The question is, Will it pay expense, and leave

something over. The "over" is what we are all after. It will, if properly managed, and no mistake. Wonders have been wrought by farmers who never saw a ditch before. They run ditches through wet places, open or closed, on the principle that gullies drain land and keep it dry. This was a natural suggestion, and it succeeded. We should take such hints more.

These drains sometimes supply water for cattle the whole year round, where springs prevail. A drain is pretty sure to catch it and carry it off for you, without a ditch dug on purpose for your pipe.

Some soils need no draining. This is always well enough known to the farmer. A thoroughly dry soil cannot be mistaken. So wet soils are sure to manifest themselves. We know but too well when our land is wet. The coarse grass tells it, the hard soil in dry weather, and the soft in wet weather. There is no drainage. In a word, there is a disposition to form a lake, which is done with much rain. Such soils are unmistakable. They will do for grass—coarse at that—and nothing else. They are sour; made so by the water standing long; and cold. Wet soils are always considerably colder than dry or fruitful ones.

Wet soils are also apt to have fertility in them. All they want is development. Draining will do this. It will do it at once by applying lime, ashes, etc. And then there will generally be a durable fertility. F.G.

CURING PORK.—A French chemist has lately asserted, that scurvy will never arise from the use of salt provisions, unless saltpetre be used in the curing; that salt alone answers all the purposes, provided the animal heat be entirely parted with before salting. He claims that the insertion of pork in pickle alone is not sufficient, but that it should be rubbed thoroughly with dry salt after it has entirely parted with its animal heat, and that then the fluid running from the meat should be poured off before packing the pork in the barrel. This should be done sufficiently close to admit no unnecessary quantity of air, and some dry salt should occupy the space between the pieces, and then pickle, and not water, should be added. Great care must be taken to fill the barrel entirely full, so that no portion of the meat can at any time project above the surface of the fluid; for, if this occur, a change of flavor ensues such as is known with rusty pork.

The pickle, of course, must be a saturated so-

lution of salt and water, that is, so strong that it is incapable of dissolving more salt. It must be remembered that cold water is capable of dissolving more salt than hot water.—[*Working Farmer*.]

[Written for the Valley Farmer.]

Farmers' Club of St. Charles, Mo.

Oct. 4th, 1862—Regular monthly meeting. President Overall in the chair. Minutes of the last meeting read and approved. John E. Stonebraker proposed, and elected a member.

Bitter Rot in Apples; Its Origin—This subject was introduced, and discussed with much earnestness and interest. It was admitted that the White Bellflower, at the age of eight or ten years, is quite sure to be affected with the Bitter Rot; and will communicate the disease to the adjoining trees in the orchard, and thus extend from tree to tree until the orchard may be ruined. It was, therefore, decided that this tree should not be planted in the near neighborhood of others; or, if so planted, cut down on the first appearance of the disease.

This variety of apple is known by some fruit growers as the Golden Pippin; but its true name is White Bellflower. It is not a dry rot, but a moist, bitter rot, and should be dreaded as you would a flock of sheep or rabbits turned loose in your orchard.

Mr. Parks, who is an extensive apple dealer, and has purchased largely for shipment, states that in some dozen orchards in our county, where the bitter rot exists, he has invariably traced its origin to the White Bellflower.

Seed Corn—The fall season naturally brings this subject to the attention of the farmer, and now is the proper time to decide upon and put in practice the best mode of saving seed corn. Let the farmer just decide upon doing this thing right, and the battle will have been half won. Corn pulled in wet weather, while the cob is still moist, and thrown into a large bulk with all the trash that may accompany it, is certainly liable to heat and injure the germ, thereby preventing its sprouting when planted, or giving it a more weak and sickly cast than if the germ were perfect. It is also difficult to select seed from a large bulk of mixed corn. Again, it is true that corn is sometimes injured while hanging on the stock in the field by the first hard freezing weather. This was the case in the winter of 1831, so that in the spring of '32 some of our farmers, after one or two plantings, had finally to send down the river to obtain good seed. Again in 1857, Oct. 20th, there was a

smart freeze. Nov. 9th, commenced having snow squalls, and on the 19th it turned very cold and froze hard, so that the Missouri river was nearly blocked with ice. That fall the corn was late maturing, consequently in the spring of '58 it was difficult for many farmers to obtain good seed—the germ had been materially injured.

The Society, therefore, advise that the seed corn be selected from the stock in the field, early in the fall, before any hard freezing takes place; that the largest and best filled ears be selected, and hung up in some dry place or spread out in small balk upon a floor so as to dry without heating. This plan will not only insure you good seed, but also a good and improved stand of corn from year to year.

B. A. ALDERSON, Sec'y.

Family Cider Mill.

A writer somewhere recommends such a mill. We are with him there. Few things are more handy in the house during the fall and winter.

With such a mill (a small, cheap, portable affair,) of course, one would always have fresh cider, who had apples—and who is without apples?

A few minutes will produce you a mug of fresh, foaming cider. This would be "fresh cider the year round" with a meaning.

And you might have it pure—a thing you don't get now-a-days; that is, if you were neat, which we hope it is more presumable than charitable to believe that you are.

Cider! and fresh cider! and pure! and at any time! "Tis a consummation most devoutly to be wished."

Who will invent the mill? F.G.

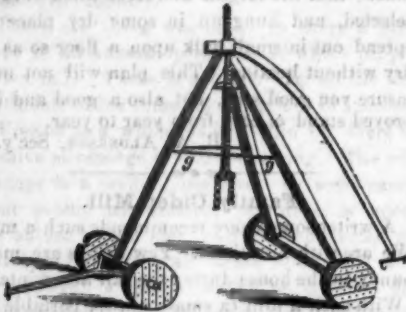
COAL OIL DESTRUCTIVE TO VERMIN.—It would seem that coal oil is destructive to all kinds of vermin, mice as well as insects. Not that it will kill mice, but drive them, remove them from their haunts. We have never tried it; but have authority for saying so.

By forming a circle of oil around the neck of a calf, says James Elwood, and along the back, and applying it in a few other places, it will effect a cure in a few days. He applied it to two calves with entire success. Others have had similar success with similar treatment. Of course, when applied in the stable, the stable itself should be renovated. And this should always be done when cattle are turned to grass in the spring. Sulphur, ashes, lime, tobacco, snuff, have all been used.

STUMP MACHINE.

A Subscriber from Union County, Ills. wishes us to give an illustration of one of the simplest Stump Extractors in use. We here give a representation of a Screw Stump Machine, illustrated and described by F. Lucas, of Castile, New York:

The screw is of wrought iron, 10 feet long and 3 inches in diameter, with threads three-fourths of an inch apart, square cut. The frame consists of three posts as seen in the annexed figure, 7 or 8 inches square at the bot-



tom, and 10 or 11 in the middle, joined together at the top, and secured by a strong band of tire-iron. Each post is hollowed at the top before it is put together, to give place for the screw. The bar posts are 13½ feet apart at the foot and 14 feet long; the forward post is 14½ feet long, and stands 14½ feet from the others at the bottom. It is fastened to the forward axle by a strong bolt firmly fastened into the post, and setting into a hole in the axle. The forward axle is usually 3 or 4 feet between the shoulders; the hind one 14 feet between the shoulders; the braces *g g* are fastened to the back posts, and pass around the front one, to prevent sliding out at the bottom. The wheels are made of 4 inch white oak plank, doubled and firmly pinned together, making a wheel 8 inches wide. The nut is movable and fastened to the lever by two straps of iron. The screws are cut left hand.

Fig. 2 represents the manner of fastening to the stump. First, dig around one of the main roots, pass the chain under it, and pass a strong chain loosely around the top of the stump to prevent the stump from tipping too much while pulling. The large chain is usually of 1½ inch iron; the small one of ¾ inch iron.

Fig. 2.

A yoke of oxen and one horse are the team necessary for working one of these machines. With the oxen they are easily moved from one

stump to another. It is in every respect superior to any other machine for the purpose.—Once made, if made as it should be, it needs no repairs of any amount, and will pull the largest pine stumps with the greatest facility. The screw may be obtained at almost any large iron factory, and any ordinary workman can do the framing.

We would suggest, in using these machines, that blocks be kept at hand and placed under the axle on the line of the posts to relieve the axle from the weight.

GREEN MANURING.

By this term I mean plowing under green crops for the purpose of increasing the fertility of the soil. It is a well-established fact that all plants derive a portion of their nourishment or substance from the atmosphere; therefore any crop turned under and allowed to decay, must leave the soil more fertile than it found it, by exactly the amount of nourishment which the plant received from the atmosphere.

The main object in this kind of manuring is to obtain a plant which grows quickly and produces a large amount of foliage without occupying the ground too long, and at the same time drawing as large a portion of its nourishment from the air as is possible.

But the leaves and stalks are not the only beneficial parts; we want a plant whose roots run deep, and thus raise from a considerable depth substances which are useful to vegetation, but from their depth are not available to our common crops.

The most common mode of green manuring in this country, is the turning under of sods for corn. The benefit derived from turning under a stiff sod for corn is known to all farmers, and some allow the grass to grow as late in the spring as possible, and put off plowing as long as it will do.

We all know that corn is a very exhausting crop, and yet as a general thing it receives no manure but what is derived from the decaying grass and grass-roots which are turned under by the plow.

But there are various other plants which are available for green manuring, of which the common or red clover seems best adapted to our climate. It soon reaches its growth, has a large amount of leaves and stems, and its roots are large and fibrous, and run very deep. Rye also forms a very good crop for green manuring, but requires more time than clover, is more expensive, and derives more of its substance from the soil.

Johnson writes, "That in no other way can the same crop convey to the soil an equal amount of enriching matter as in the leaves and stems."

One great advantage of green manuring is that these vegetable substances when turned under, decompose rapidly, and soon benefit the crop. Another is, that grain manured in this manner never falls to the ground through weakness of the straw, but no matter how heavy the head it retains its erect position.

But we must not attribute all the benefit derived to the leaves and stalks, for the roots in some cases contain as much bulk and nourishment as the leaves and stalks. It has been estimated that the weight of the roots left in the soil by a sod four years old is equal to one-twentieth more than the weight of the grass grown the fourth year.

The best plan to bring a field under a course of green manuring, is to apply the manure on the sod for corn, which should be followed with oats in the usual manner, with a good coat of clover (say eight or ten quarts to the acre) sown among it. After the oats is taken off, the clover may be pastured lightly during the fall. Next year it should be allowed to grow until three or four weeks before it is time to sow the wheat, when the clover should be well turned under and allowed to remain until seeding time, when the wheat should be put in in the usual manner.

By this plan, the manure is in good order to act on the wheat crop as soon as it is sown, and the green clover will strengthen the straw and increase the yield of grain.

This has been my practice for several years. Last spring I sowed one bushel of plaster per acre on the clover, and this fall I shall have a luxuriant crop to turn under. But I expect to plow a portion of it before harvest, and then plow again (shallow), before seeding with wheat and grass seed next fall.—[*Germantown Telegraph*.]

TO REMOVE A SKUNK FROM THE CELLAR.—Take him slyly by the tail, and carry him out. You may carry him as far as you please with perfect safety. He may raise his head towards your hand as if to bite; but just hit it with your other hand, and he will be easy. I have tried this, so that I know whereof I speak. F.G.

SWEETENED VINEGAR.—Vinegar, in its various uses in the family, should be a little sweetened. It takes away the roughness of the acid. Begin with a very little sugar at first. We have used it so for many years; and cannot now use it in the raw state.

THE SOURCES OF PLANT FOOD.

There are two great sources whence plants derive their nourishment: the atmosphere and the earth.

The leaves and the roots are the two means by which this is accomplished. Thus plants have a double capacity for growth.

The principal food of the leaves is carbon, the main ingredient in vegetables.

Experiments have shown that about two-thirds of the carbon of plants is derived from the atmosphere: in some cases double or triple that amount.

Plaster has an effect to increase this amount. So have charcoal and other agents.

Charcoal is a powerful absorbent, and thus contributes to fertility, viz., by giving up to the plant what it holds by absorption. In this sense it becomes a manure. When thoroughly charged, it is probably one of our best fertilizers.

The attractive power of plants to obtain their food, must be very great. It takes the ammonia from the soil, when no other agent, except chemistry and mechanical force, can extract it. So the charcoal is not strong enough—it must yield to the plant.

This gathering food from the atmosphere for the plant, is an interesting thing, and should be made more available. Particularly should it be profitable, as it thus draws its strength—the very essence of it—from a free source, where it need not be bought or carted. In this sense the atmosphere is every cultivator's dung-yard.

It is the grand fountain, the great source of plant-food, presented to you everywhere—at your very door, and at all times. It is not only the source of vitality to animal, but vegetable life. Each wind that blows adds invigorating health to vegetation. The leaves of trees and of grain, and the blades of grass, take in the food; so that every wind is a god-send to the farmer.

This is done by displacing the air in immediate contact with the plant, air deprived of its carbon by absorption, with new air charged with new food for the plant; as wind cools the body, by removing the warm air which is in contact with the body, made warm by that contact, and supplying it with new and cool air.—The principle is exactly the same.

Charcoal, plaster, clay, and other substances, attract from the air.

Let us, then, set these as traps for the carbon—that carbon which rises from such innumera-

ble sources; from barn-yards, compost heaps, animals, particularly in breathing from the lungs. All exhalations are apt to have it; to have the fertilizing principle in some form; minute, perhaps, but not too minute for the agents we have mentioned to abstract: they can find it.

ASHES.

It is said that leached ashes are an excellent fertilizer, gathering their properties from the atmosphere, and consequently improving with age.

This is not our experience, and we have used leached ashes to some extent. Ashes when not thoroughly leached, as is often the case, will of course have an effect according to the amount of potash left. We suspect this is the only effect. We have an ash-heap pretty thoroughly leached, of over twenty years' standing, and we find it little better than so much sand. For unleached ashes we have a profound respect. As a top-dressing to grass lands, and an ingredient in the compost heap, we have great faith in wood ashes pure from the hearth. We always find them good according to their strength. If leached, as is usually done for soap with lime added, we find ashes of some considerable benefit. When leached at the asheries, we find little benefit.

F.G.

[Written for the Valley Farmer.]

Sorghum Culture and Manufacture.

1. Select a dry, rich, sandy soil, with a southern exposure, if possible; at any rate it must not lie to the north. Plow in the fall if possible; in the spring plow early and deep. Harrow well, and plant as high on the top of the ground as possible, just as soon as there is no danger of frost. Hoe and plow as soon as possible, and work it well until about three feet high, then lay it by, still taking care to keep down all weeds, and your crop is made.

After the cane is grown and ready for working up, then comes the most particular part of the process. Strip the blades off when the top seed are beginning to get in the dough; then as soon as the seed are all out of the milk it is time to begin grinding. A wooden mill answers for small crops, though a vertical iron mill is preferable, but it costs rather more than farmers are willing and able to pay. Most farmers only aim to raise from half to two acres of cane which will not justify them to pay \$40 for an iron mill. Two wooden rollers of twenty-four inches diameter will answer if they are proper-

ly made. They should be turned very true, and, on account of wearing, should be made a little the fullest in the middle, then if they are set true in a good frame they will do.

Then we want Mr. Cook to have manufactured, especially for the use of farmers, an evaporator that will boil off about twenty gallons of molasses per day. The present ones cost too much for farmers to use them to any extent—they want something cheaper.

Well as yet I have told nothing of much interest, but here is my plan of procedure: I will have a large hoghead, or gum from a hollow tree, or even a deep box will answer the purpose. Then put in the bottom of your gum a good lot of small twigs and limbs from bushes, upon the top of that put some straw, then some fine gravel, and on, that about three inches of coarse, clean sand and pounded charcoal. On that put a cloth nicely fitted around the sides, then about an inch of clean, fine sand—then your rectifier is ready, and if one is not enough, have more of them. As fast as you press the juice, put it in the rectifier, and you will see it come out about the color of rain water, it is then perfectly clarified and ready to boil down. Above all things do not hurry the boiling so as to scorch it, as it is very liable to do so. It should not be allowed to cool until it is done. The juice needs no skimming as it boils, as that is done in the rectifier.

If it is managed in this way, you will have an article of molasses that is healthy and palatable. I have a sample that is well granulated and would make sugar.

The above plan is practicable for farmers, and I want every farmer in the land to read it.
Dundee, Mo. S. S. BAILEY.

A GOOD THING TO HAVE.—Reader, if you have not a large kettle or caldron, get one, and hang it, or arch it, so as to have it always ready to strike fire. You will soon find how many uses you will have for it. Into this during the latter part of summer and the commencement of fall, put in what apples drop prematurely, what squashes ripen early, and refuse potatoes; boil and mix in a little meal, and feed to the pigs. Squashes are highly recommended when boiled. We know for a certainty that sweet apples are excellent. In this way a great saving may be made.

"A No. 1."—We find it always pays to make the best articles; raise the best produce. Butter that sells for two cents the pound more, costs no more than cheaper butter. A man has the consciousness, also, of making a good article, which is something. Strike for No. 1.

THE USE OF LIME.

Farmers who can, as well as not, use lime, are greatly to blame for not using it.

Here is a manure of the first water. What is more, it is lasting; lasting for many years. It is just the thing on sour soils, as it will surely destroy the acidity. Wet soils are generally sour. It will also destroy sorrel; for (to those who do not know it) lime has an affinity for what is sour, and destroys it. It will do this in any chemical experiment. Try it. Try it in soil where sorrel is; on wet soil. Try it on any soil. Be not afraid there is too much lime in your soil. Cover your fields with it. It is a whiteness we always like to see. It is so excellent for meadows and pastures, and any soil. Be not afraid you will spoil your land. But don't plow it under immediately. As water is necessary to slake lime, so the weather must work upon it: the sun, the frost, and the rain. Spread over plowed ground in the fall, and then harrowed in the spring, is most excellent; the year following still more excellent, whether grass or grain; and so on for several years. Always apply in the fall, if possible. For corn, it should be covered in the spring, as the color of the lime will prevent the sun from heating the ground. It is the black soil that draws the heat; and that's the soil for corn, as well as for a garden, and most grains. Lime is especially good in a garden; applied on the top in the fall, and then worked in in the spring. It will sweeten, and make more brittle and white, your radishes, your beets, turnips, and in fact all your garden stuffs. That is the nature of lime. It will also add solidness as well as frangibility, that is crispness. This is a very desirable quality. If the acid of your fruit is not so strong, neither is it so rough; and if thoroughly ripened, the fruit will not suffer much, if any. We have never met with any inconvenience in this respect. And there is good reason, for the atmosphere imparts the acid. Potatoes are sweeter and more mealy when lime is used.

One quality lime has not got: it does not mellow the soil, neither do we think it compacts it. Use lime. Use it now—in the fall, as early as you can. At least make the experiment. Use ten bushels, more or less, of slaked lime, to the acre. If more is used, it is better, and the effect will last the longer. But even a little will help. At once, without delay, whiten your garden with lime, after you have spaded it, but better without spading than not at all. Be not afraid to apply it plentifully, at the rate

of fifty or more bushels to the acre. Use the lime. Use it now; at once, when you read this.

Winter Evenings.

The long winter evenings are at hand. Now is the time—not for attending parties; nor sitting in bar-rooms or stores; or eating oysters, and drinking wine or beer, or being idle, smoking the pipe and stretching the body.

Better than these a sleigh-ride, if there is snow; or a slide down hill, or skating—ah! beautiful skating!

Better still your book, your paper, with now and then a hand aiding the better-half.

Better still than all, the union of the last two paragraphs.

These winter evenings, how inspiring! Such bright nights—whole, long nights—so very clear and crisp, and echoing with smartness.—Then the stars twinkle; the moon is queen. Such nights draw us out-doors; they are healthy and invigorating.

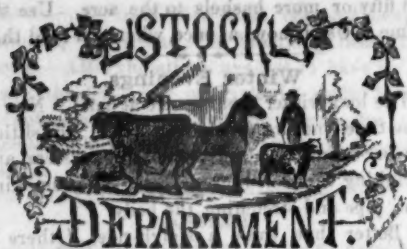
PLANK SIDEWALKS.—Gravelled sidewalks and stone pavements are the "go" now-a-days.—Well, they have one important advantage: they are lasting. But we prefer the smooth, soft plank, with a slight spring that is almost like velvet. It is less expensive than stone, looks well enough, is easily put down. What if it must be renewed every dozen, or even half a dozen years. A new plank walk will not walk any the worse, and may admit of improvement. Then, there is the saving in sole leather. That is something—we think it quite an item. It always jars us to walk on the stony pavement; besides, it makes a noise. Convenience first—and that sums it up. Give us the wood. F.G.

POULTRY AGAINST SWINE.—A writer in the *Springfield Republican* demonstrates, that a pound of pork made in 1861, cost 6½ cents, while a pound of poultry cost 6½.

The profit on 15 hens and 1 turkey, was \$50.70; the profit on 2 swine 96 cents.

Corn was the principal food of both poultry and pigs.

HOW TO SELECT FLOUR.—First, look at the color; if it is white, with a slightly yellowish or straw-colored tint, buy it. If it is very white, with a bluish cast, or with black specks in it, refuse it. Second, examine its adhesiveness; wet and knead a little of it between your fingers; if it works soft and sticky, it is poor. Third, throw a little lump of dry flour against a smooth, perpendicular dry surface; if it falls like powder, it is bad. Fourth, squeeze some of the flour in your hand; if it retains the shape given by the pressure, that, too, is a good sign. Flour that will stand all these tests it is safe to buy. These modes are given by old flour dealers, and they pertain to a matter that concerns everybody, namely, the staff of life.



[Written for the Valley Farmer.]
VETERINARY DEPARTMENT.

By Geo. H. Dadd, Sen., V.S., Chicago, Ill.

"STIFLE OUT" (LUXATION OF THE PATELLA.)

The *Patella* of the horse, or "Stifle-Bone" as it is sometimes called, corresponds to the kneecap of man, and performs the same office.—The position of the bone is at the lower part of the *femur*, and upper part of the *tibia*. The bone itself is kept in position by strong ligaments, and in consequence of the presence of a large prominence or condyle on the inner and lower part of the *femur*. Dislocation inwardly very rarely, if ever, takes place; the bone is, therefore, in case of luxation—*stifle-out*—found on the outer and lower part of the thigh.

An accident of the above-named character is usually accompanied with much pain, and it is with great difficulty that the animal can be urged to leave the stall; the limb is rigid, and it is a matter of impossibility to get it off the floor, for the simple reason that the stifle is thrown off its pulley-like articulatory surface, and the action of the joint is suspended.

The liability to *stifle-out*, or luxation of the *patella*, is not so great as some persons would suppose; I have seen but very few cases of the kind. Many times have I been requested to visit horses said to have their stifle out, and on making examination have often found them the subjects of cramps, or spasms, of the flexors; others have turned out to be cases of foot lameness, nail in foot, and even fracture of the pelvis.

So that the reader may not mistake a case of this character, I would inform him that the stifle is never out, unless the bone can be distinctly felt and seen, per tumor, on the outer and lower part of the thigh bone, at the same time the animal when urged to move does not raise the limb but drags it after him; this accident can easily be distinguished from a case of spasm or cramps, from the fact that when cramp sets in, the limb becomes, as it were, riveted to the floor; this condition, however, is peculiar to cramp of the flexors, or those muscles

which are concerned in bending the affected limb.

Means of Reducing Dislocation of the Patella or Stifle.—The means of reducing dislocation of the patella are very simple. The patella (stifle-bone), as I have already intimated, will be found on the outer side of the stifle-joint. The person who proposes to accomplish the reduction must with his right hand (supposing the dislocation to be on the near or left limb) grasp the leg just below the hock, and gradually raise it upward and forward; the left hand should, at the same time, embrace the stifle-bone, then by joint actions of pressing the bone inwards, raising and extending the limb, the stifle-bone slips into its proper position, and the reduction is then effected. It will be observed that at the moment when the stifle-bone slips into its proper position, a snapping sound is heard, like that when the head of one of the shaft-bones is made to slip into its socket. As a precautionary measure, it is highly necessary that assistants should support the animal, lest he fall and injure both himself and the operator.

According to the above rule, it is a very easy matter to reduce a recent dislocation; and such requires very little after treatment, except rest, and the application, occasionally, of cold water.

When the stifle-bone has remained unreduced for many hours, it may be inferred that the ligaments, tendons, &c. have been so long stretched or distended that they will not immediately contract, so that unless we adopt measures to prevent it, a re-dislocation is very apt to occur. To guard against this, a person has to be stationed so as to keep a hand on the stifle-bone, at the same time the region of the stifle must be constantly bathed with some astringent. A solution of alum will answer; sometimes however it is necessary to shave the hair from the part and apply a strengthening plaster, composed of pitch, tar and rosin—equal parts; these are to be melted in a tin or iron vessel, and when the mixture is sufficiently cool it may be spread on the region of the stifle by means of a knife or spatula; this is to be covered with a thin layer of wool or cotton batting.

In days of yore it was customary to apply the Stifle-shoe, but I think that the practice is injudicious—highly injurious—and at the present period is scarcely, if ever, advocated by men who do their own thinking and practice in accordance with the principles of common sense. Many valuable horses have been ruined by the practice formerly pursued of forcibly (by means

of a cart-rope) dragging the limb forwards and effecting a reduction without any regard to the mechanical action of the parts.

[Written for the Valley Farmer.]

A Case of Pneumonia, or Inflammation of the Lungs.

BY GEO. H. DADD, JR., V.S., ST. LOUIS, MO.

On Sep. 20th, I was called upon to visit a roan gelding, the property of a gentleman of this city. On arriving at the place designated by the owner, I found the animal in the following state:

Head hung down; the eyes somewhat lacking their usual brightness; respirations rapid and somewhat laborious; pulse quick and strong; membranes of the mouth and nose of a highly reddened hue; legs cold; slight cough; refused his feed, and would not lie down, his forelegs standing wide apart: these were the key notes, and I accordingly pronounced it Pneumonia.

TREATMENT.

I consider nursing to be of very great advantage in the cure of disease, and I forthwith ordered my patient to be placed in a clean stall, where he might have the advantages of inhaling pure air. I also had his body well clothed. His legs were freely rubbed with straw, and flannel bandages were wound around all four limbs from the hoof up to the knees.

As he was now in the acute stage of the disease, and high inflammatory action was present, I administered by drench the following:

Nitrate Potass, $\frac{1}{2}$ an ounce.

Podophyllin, 1 drachm.

I then had a thin bran mash placed before him, and cautioned the ostler to withhold all oats and corn. Towards evening I gave him by drench,

Blood Root, 2 drachms,

and left him for the day.

2d. Day—Called and found him in much the same state, although I could perceive the respirations were not so hurried as on the day previous; but he retained the highly inflammatory state, and also had a morbid thirst for water. I placed a bucket of cool water before him, first placing in the water half an ounce of Nitrate of Potass. I also had his sides rubbed with

Powdered Mustard, } Mixed together so as
Vinegar, } to form a paste.

I took off the bandages, and rubbed his legs well until I had produced an equal circulation of the blood all over the parts.

3d. Day—Found my patient with encouraging

symptoms; his breathing was not so hard; pulse falling; legs not so cold, but he was beginning to show symptoms of debility, I therefore administered,

Golden Seal, 1 ounce.

Ginger, 1 drachm.

Glycerine, 1 drachm.

The disease was now bordering on the chronic state, and in consideration of this fact, the treatment required was tonics and those medicines in whose properties there are agents which will co-operate with nature in sustaining vitality and life. I left a dose of the following to be given in four hours after the first dose which I had administered:

Golden Seal, - - 1 ounce.

Iodide Potassium, 15 grains.

Blood Root, - - 1 drachm.

4th Day—This morning I considered my patient to be a far different horse from what he was when I first commenced with him. He began to show symptoms of activity; held his head more erect; his eyes appeared brighter and his legs were warmer, and his whole appearance had undergone a great change, and in a very short space of time, I gave him a tonic, namely:

Tr. Golden Seal, 1 ounce;

and informed the owner that I would call in the morning.

5th Day—After examining my patient, I ordered the bandages to be taken from his limbs. I had him walked around in the open air. The owner then mentioned to me that he thought he needed no further treatment. His suggestion I complied with and discharged the case.

This is only one of the many cases which go to show how medicines of a sanative character will act upon disease, and how few take into consideration what harm they are doing and the small amount of benefit the animal derives, when these individuals are pouring an apothecary's shop down an animal.

In the above disease of Pneumonia, care must be taken as soon as the animal shows any symptoms of the complaint, to place him in a dry, clean stall, in which place he has the benefits derived from an unadulterated atmosphere. Whatever feed is placed before him, should be of a sloppy character, such as bran mashea, &c. And bear in mind there are but two conditions, namely—acute and chronic, and they are to be treated accordingly.

Prepare good winter quarters for your stock, and it will prove the best economy in the end.

SHEPHERD DOGS.

In some remarks upon the dogs which the shepherds use to assist them in tending their flocks upon the mountains, the "Ohio Farmer" says the reason why shepherd dogs do not have the attention in this country that they do in Europe, is owing to a misunderstanding of their uses, and a different system of sheep husbandry. The sheep pastures of Scotland consist of large tracts of wild, mountainous land, covered with heather and wild grass, with some alpine plants. There are in these regions few dwellings, and one can travel a whole day seeing no signs of human life but the shepherd's hut or sheiling. In such a place the value of a good shepherd dog can hardly be over-estimated.—The following account we copy from the above mentioned journal:

"The sheep are kept out-doors all the year, especially in the northern part of the country: and the shepherd seldom sees any person. In such regions the dog is truly a useful animal. He is worth more than a man in gathering the scattered flock, and "wearing" them in winter during snow storms; for at these times the sheep seek the sheltered hollows to the lee of the blast, and in such places are sure to be entombed in a drift, where they will in all probability perish." The shepherd must therefore keep them on the exposed side of the hill, where the snow cannot drift; and this must be done day or night, light or darkness. Without the dog, this cannot be performed, for the sheep will soon wander off and be lost to the eye of the shepherd; but the dog keeps them together in the right place. So it may easily be seen that two or three of these useful animals are of more utility than an equal number of men.—Should a single sheep go astray, a good dog will find it, and bring it back; and it is all the same if, instead of one, there should be twenty.

Drovers use these dogs as aids in driving sheep to market; and a couple of them are worth a dozen boys with sticks. They never worry the sheep, but if necessary will take hold of it without inflicting injury.

To have a dog of this kind in good training, it is necessary that he should always be with the sheep, and be the companion of the shepherd; and it will generally be found that the best shepherds have the best dogs, for they take them as if they were reasonable beings, and treat them kindly.

The Scotch Cooly cannot be called a brave dog, although some exhibit considerable courage. In biting, he snaps like the wolf. We

have seen a bull terrier chase half a dozen of them, each larger than himself. He protects the sheep to a certain extent, but his true value consists in his constant care of the sheep. He does the work of a man without costing as much, for his food consists of scraps, oatmeal porridge and oaten cakes. Meat he is seldom allowed to taste, and the more seldom the better, for he might acquire a relish for mutton. He is highly valuable on a large sheep farm, or to the drover; but less so on a small farm, or where the sheep are fenced in, and kept penned up during the winter.

The care of the sheep is with the puppies an acquired instinct. Many of them need little or no instruction; but it is usual to bring them up with an old dog, who shows them a good example, which they are not slow in imitating.—[*Ex.*]

PROPAGATION.

Nature propagates her kind—man for man, beast for beast, bird for bird, and grain for grain. She not only does this; but she propagates the various qualities of each kind to a wonderful minutiae.

Farmers take advantage of this, and select the earliest and largest heads of wheat, and the best ears of corn—and they are sure they will get the same. Not only this; but by taking every time the best seed, they constantly improve their stock of grain. This accounts for the great improvement we see in fruit, grain, &c. The different kinds of apples were not all raised in the garden of Eden. They improved by advantageous propagation. A farmer, as we have stated, always selects the best ears of corn. But he should be more particular still, and select not only the largest, but mark the earliest and seek these in another locality, not on his own farm, though for several years he may cultivate from seed raised on the premises, from the parent crop itself, improving it each year, and getting a fine corn in consequence and a better crop. Take heed to a proper selection, for Nature is true to the re-producing principle. She will do her part most beautifully and faithfully.

So it is with animals, not only according to the blood of their progenitors, reaching back to the third and fourth generation, but they will transmit properties acquired, though at first in a small degree, improving with each continuance.

Thus, great changes may be effected, and for the better. The thing is somewhat definitely

summed up in the following manner by Dr. Hitchman:

"1. That man has been endowed with the means of controlling and modifying the form of all animals.

2. That such modified forms can be handed down to the progeny; but being departures from the primitive or natural type, the form can only be maintained by assiduous attention on the part of the breeder.

3. That not only because the qualities of the male can be immediately brought to bear upon larger numbers, but also because of his own special endowments, it is best to seek for improvement of form and quality through him.

4. That qualities both of the form and also of the character become hereditary in proportion to the frequency of their repetition in past generations; but that it is dangerous to breed from any animal with important defects, however high its pedigree.

5. That healthful, well-formed animals, without hereditary taint, even if closely related, may be safely permitted to propagate their kind, provided the practice be not continued through many generations.

6. That young animals for their first impregnation, should be placed to the best of their own kind, in order to avoid the re-appearance of stain in any future progeny.

7. That science has not yet revealed any trustworthy arrangement by which the proportion of the sexes can be determined upon and secured."

MILK FEVER IN COWS.

At a meeting of the Farmers' Club, on the 21st of June, Mr. Lansing spoke of cases of milk fever occurring in a dairy in his vicinity, which resulted in the death of a number of valuable cows. The cows were in high condition, in good feed, and had "calved" during the month of June. All the animals seemed to be in excellent health up to the time of calving, and for three or four days after gave a large quantity of milk, when they suddenly grew weak, staggering and reeling about as they walked, and dying in a few hours. Some effort had been made to save the cows by bleeding, giving medicine, &c., but without success. Other members of the Club spoke of cases that had occasionally occurred in their dairies from this cause, and the danger of having "cows come in" late in the season, when the feed in pastures was succulent and abundant. The experience of members with regard to this disease was, that the animal

could be saved if the treatment commenced before the time of calving. Say a week or ten days previous, the cow should be kept out of the hot sun. Let her be placed in a stable without food during the day time, and turned to pasture at night, and if she was in high condition, this would have a tendency to reduce her, which was the point to be gained. After calving, for two or three days, avoid letting her drink large quantities of cold water, keep her cool and quiet, and feed sparingly for a few days, and the disease could be prevented.—[Dairy Farmer.

[Written for the Valley Farmer.]

ABOUT THE HOG.

The hog is a peculiar animal, grunting his way through the world, seeking things to devour. He will wallow, and do quantities of mischief, causing him to be yoked and penned; and he is in trouble enough with his yoke, especially when a brute greater than he prepares it. Of all things that creep or run he is the most obstinate. Yet the hog has his excellent points, aside from his pork points. He has a witty, human eye, and a courage that makes him knight of the sod. This he gets from his ancient congener, the wild boar. He even displays it in his cowardice. His bristly back is formidable when he sides up to his antagonist, snapping his chops, for it carries a momentum that is not easily resisted.

Mire-loving as he is, he yet likes a clean place; and, when clean, is a most comely brute, especially when a porker of 400 or 500 weight, with his silvery, transparent bristles covering the solid shoulders.

And he has points in common with the human kind which few animals can claim, which the butcher will point out to you in his organization.

Then, there are the pigs. Litter is bad; but pig is excellent—a clean, ring-tailed grunting, full of mischief, but all harmless in its frisky, round-about way. Then think of the little grunt—wanting to be a hog, too—yet with none of the *amor immunditie* visible; clean, silken, humorous, happy, beginning his predatory habits early, but feeling his way into grain fields and gardens. But—

He is yet to be viewed in his most enviable light, as a roast pig—*vide Elia*—*vide tables & hots* on Fourth of July's and muster-days.

From the tables of the great, let us again descend to the mire where the true hog is found.

Writers are exhibiting what is thought a new propensity, or an unusual one with the hog—

his disposition to eat grass. Years and years ago, we remember well, meeting him in the highways and the pastures in common with the goose, cropping the grass. Usually his acre was set off for him with a wallowing place in it. This last never failed. And he consequently never failed to show a good coat of dirt with which he ornamented the streets and painted the fence. All this we remember distinctly. But the hay eating—that is new. Though we doubt not that tender clover, well seasoned, will be eaten by him, and prevent starvation—cause him even to thrive—for what will not a hog eat? and what he eats will do him good—even rattlesnakes.

We have tried the clover hay, but have never seen him pitch into it, unless it was to lie in it. Perhaps starvation will give him an appetite, awaken a gastronomic sense that by long disuse has lain dormant. F.G.

THE POOR CATTLE.

Now is the time they suffer most, unless they have a humane master. Remember, they never complain; they are dumb and patient. They will even die without a murmur. They cannot therefore tell you what they endure. You see it by their bent forms as they stand against the shed, which so poorly shields them. If they are the sufferers, so you are the loser. It will cost you the more hay—to say nothing of your conscience—and perhaps a cow, or a calf, or a sheep—perhaps a colt. For these dumb beasts are subject to colds, and other diseases engendered by the weather. And such a man (as will leave his cattle in this condition) can hardly afford to lose a cow or a colt. It would be so much dead loss—so much money virtually taken out of his pocket.

ADMINISTERING MEDICINE TO HORSES.—Geo. Beaver writes thus to the *American Agriculturist*: "I consider the usual method of giving medicine to horses, by drenching, as it is called, highly objectionable. In this process the horse's head is raised and held up, a bottle introduced into his mouth, his tongue pulled out, and the liquid poured down. In his struggle, some of the medicine is quite likely to be drawn into his windpipe and lungs, and inflammation and fatal results sometimes follow.

A better way is to mix the medicine with meal, or rye bran; make it into balls, pull out the horse's tongue, and place a ball as far back in his mouth as possible; then release his ton-

gue, and he will almost certainly swallow the ball. Or the dose may be mixed with meal and honey, or some other substance that will form a kind of jelly, placed upon a small wooden blade made of a shingle, and thrust into the back part of his mouth, when he will very easily swallow it."

RUSTED STRAW AS FODDER.

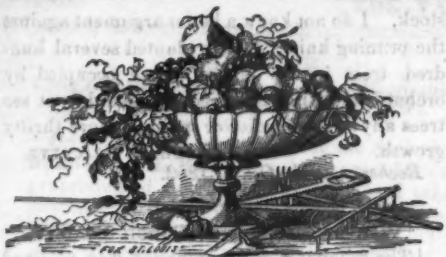
A writer in the *Rural New Yorker* holds that the straw of blasted grain is better than the straw containing the matured berry—the substance which was intended for the berry remaining in the straw. He says he fed a milch cow on good hay, and then changed to rusted wheat straw, finely cut; and that the cow gave three quarts while fed on the straw, whereas she gave but two before.

Now, is it not more probable that this straw contained the more nutriment in consequence of cutting it earlier, than would have been the case had it been permitted to ripen the berry? In such case the straw would have been what the writer represented it—worth more, or at least as much as hay. The subject is one worthy of consideration. F.G.

GOOD TREATMENT.—We believe the success of the Rarey system, is good treatment. Good treatment overcomes the world. Only let it be genuine. Even a false tenderness is better than a genuine bad temper. And it costs no more for the one than the other. It is cheap to do good as well as beneficent. And yet why is it not more practiced? Because we are heedless. The better habit is soon acquired.

PIGS—HOW TO HELP THEM ALONG.—A writer in the *Stock Journal* says that if you should want to make anything very nice of your pigs (for you can), when the pigs are about ten days old commence to carry the basin of warm milk into the pen, and let the pig get hold of the edge of the basin, and spill a little into his mouth; if he gets any, he is learned. Make a small pen outside of the pen, and cut a small hole, not large enough for the old sow, but for the pigs to come into the little pen; then put a small flat trough in it, and feed them each time sweet milk, and, as they advance in age, give them of the same milk as the sow.

COLIC IN HORSES.—We obtained the following prescription for that often fatal ailment of the horse, from Mr. Dickson, of Waukarua. He informs us that he has used it with invariable success for years: Four ounces saleratus, two ounces black tea, one pint of water. The tea must be steeped thoroughly. Put the mixture in a bottle and give the animal half of its contents. If that brings no relief in half an hour, give the balance of the dose.—[*Ohio V.F.*



HORTICULTURAL.

PROFITS OF FRUIT CULTURE.

W. D. Gallagher has recently made a report to the Kentucky State Agricultural Society, on the commercial value of Fruit Culture, from which we extract the following:

"Of course, the first question that most men will ask, when solicited to embark in horticultural pursuits, is this: *Will they pay?* Upon which we remark as follows:

"1. Remuneration is relative. To be considered intelligently, it must be looked at with reference to the capital invested, the amount of labor employed, and the extent of the personal supervision required. Horticultural pursuits will not 'pay' as a winning game at cards pays. They will not pay as a successful speculation in breadstuffs or provisions pays. Nor will they pay as five per cent. a month on money loaned pays. Nor yet as a New York hotel or a New England manufactory pays, when those concerned in it are 'satisfied.' But that horticulture properly pursued—not as a fancy or an amusement, but as a regular branch of agricultural labor—will pay a good interest on capital invested in it, and make a handsome remuneration for work performed, there is not the smallest room for even the smallest doubt.

"2. Examples of very great success in this business, in the United States, are by no means rare. Four or five years ago, a peach orchardist in Ohio was offered \$18,000 for the fruit on twenty acres of peach trees, while it was yet growing, and more than a month before the period at which the earliest part of it would ripen. He declined the proposition, and realized about \$20,000 from the same fruit by gathering and selling it to consumers himself. This, however, was a most extraordinary instance of a good combination of circumstances, viz: fine fruit, a ready market, and high prices. It is one of those happy accidents which occur only once in a very long while. And, besides, four or five years of labor and care had preceded this crop, which was the first borne upon the trees.

"3. Some vineyards near Cincinnati have, in favorable seasons, produced nearly \$1,000 per acre, but a much more common yield, one year with another, is about \$250; a sum for about which good land in the Ohio Valley, easily accessible to the best markets, may be bought, trenched, planted (the price of slips included), staked (with oak), and cultivated to its fourth year. The fourth year brings a crop—though not a full one. Let the avails of this go for interest and contingencies, and the account will then stand thus:—Cost of a bearing vineyard per acre, \$250; value of crop, fifth year, \$250. Account balanced (capital, interest, and expenditures for labor being repaid,) and closed. Within the succeeding five years, the equivalent of four crops may be counted upon. This is equal to \$1,000, which, divided by five, gives \$200 per year as the product per acre. This looks a good deal better than growing twenty bushels of wheat to the acre, or ten barrels of corn. In Washington Co., Ohio, snug little fortunes have been made in raising one single kind of apple, (the small Romanite), and shipping it southwest for the supply of New Orleans. Strawberry growers near Philadelphia have often pocketed \$500 to \$800 per acre for that delicious fruit.—And a plantation of three acres of raspberries on the Hudson river, is stated to have yielded as high as \$1,500 in a single year."

[Written for the Valley Farmer.]

ABOUT APPLES.

Apples! rosy-cheeked, striped and yellow; all with plump cheeks, hanging clean on the bent branches. Some trees, like spiders, on "all-eights," with only the smooth, naked limbs bending down, in obeisance to the earth, the earth drawing the fruit it gave, as if it wished to touch the cheek, so red and so golden.

And these limbs (the trees seem almost leafless) are so healthy, yellow almost as bone, and brittle, one would think they would snap. But they hold the treasure; hold it for the basket, for the eye to fondly gaze upon.

It is almost a pity for the tree—so bent. Will it ever get its shape again? Its maternity is almost too much for it, we fear. But it will straighten out again, and be a young mother another year.

Such trees are frequently seen this year. It is a fruitful season for the trees; as if each tree would outvie its neighbor. Innocent rivalry.

There is something then in the season. Ay! much. There is a universal dearth of insects for one thing; and there has been a surcease of fruit for years, so that the trees have gathered

their full strength, and made an issue. Are we to be famished after this? Perhaps. At least this winter, these long winter nights, we shall enjoy what is given us; shall live over again the olden times of plenty and good cheer. And cider! I see it sparkling and red. Such cider has not been drunk for many and many a year, as will be seen this winter. But—

Here for a word of direction (to make cider): Only sound fruit should be used; such fruit (each apple) as no one would be afraid to eat; clean, wormless, ripe; if fragrant, all the better; not too sour, nor too sweet, but a good eating apple.

Assort your apples, wipe them, and make up in a clean mill. You will then have the pure juice (if you keep the pomace out), that will come out sparkling and bright. When at that point, the point you want it to drink well, put your barrel in a cool place, somewhere at the freezing point, or below. To keep it in the proper temperature, is worth all your drugs: it is healthful, it is natural, it is relishable. Drugs arrest its natural action, and deprive it of body. F.G.

FRUIT IN INDIANA.

ED. VALLEY FARMER: We have this year a fair peach crop—the first for the past eight years. Plums have to some extent escaped the ravages of the curculio. I have one tree of Coe's Golden Drop; these were all marked, but my wife saved a few dozen by carefully cutting out of each plum the egg of the insect. The plums thus operated on grew finely, the wound healing nicely, and these were the only ones that ripened on that tree. I think this one of our finest plums. This operation of cutting out of each plum the egg, is somewhat tedious, yet it pays well in many instances, and is a sure remedy.

I have not found in any part of the country fruit trees bearing more or better fruit than mine, and none looking so healthy. This I attribute altogether to the fact that no pruning knife, axe, or saw has been in operation on the trees for the past few years. I have seedling apple trees six years old that have been bearing fruit for three years past; pear trees that have borne fruit each year since the first year of planting, which I am satisfied would not have been the case had I trimmed them in the way generally practiced. I notice that frequently the sprouts from near the roots of trees that have been trimmed, before transplanting, will come into bearing before the old stock from which they sprung, and that they soon outgrow the old

stock. I do not know a better argument against the pruning knife. I have planted several hundred trees in the places before occupied by orchard trees that had died out, and do not see trees anywhere hardier or making more thrifty growth.

CHAS. BRACKETT.
Rochester, Ind., Oct. 2, 1862.

Winter Killing of Peach Buds.

[The following communication was received last March, but owing to a press of business, we neglected to publish it at the time.]—Ed.

ED. VALLEY FARMER: In the March No. of the Farmer, you state that most of the peach buds in the vicinity of St. Louis were killed on the 13th of Feb., with the mercury only 10° below zero. You say you never saw the buds less swollen and in better apparent condition to resist frost. You ask for information, &c., &c. I don't know that I have any, but I will give you my experience and observations on the subject.

The summer of 1860 was very dry in this vicinity; so much so that we raised little or no crop. Winter found the peach buds smaller than ever I noticed them before. I thought they were safe from winter killing; but the cold in January destroyed all but a few lower ones that were buried under the snow. In portions of Ray, Clay and Platte counties they had rain enough to make a good crop of corn in 1860, and a bountiful crop of peaches in 1861. On inquiry, I learned that the cold was the same there and here, (17° below zero). I can account for the buds being winter killed in this vicinity, only by their not being sufficiently matured to bear the cold; for so far as I can learn, wherever they had rain enough to make a crop in 1860 in this latitude, the peach buds did not winter kill.

I find on looking over my journal, that on the morning of the 18th of January, 1857, the mercury sunk to 24° below zero with a bright sun; yet the buds were not injured, and we had a good crop of peaches that year. On the 22d of Feb., 1858, the buds were mostly destroyed with the cold only 7° below zero—the trees were covered with sleet and the day was very clear. This season the buds on our young, vigorous trees are mostly killed; while on the older trees (from 6 to 14 years old) very few are injured. Why is it that old trees stand the cold better than the young ones? The buds appear to be of the same size—they are yet quite dormant. Is there not much that is a mystery in this winter killing of the buds at one time at a comparative high temperature, and their escaping at another time at a much lower one? There is at least to

RUSTIC.

Clinton Co., Mo., March 10th, 1862.

THE ROSE.

Being an Essay read at the Cincinnati Horticultural Society's Rose Exhibition, June 7, 1862.

BY WM. HEAVER.

On this occasion appointed by the Society for its annual *Rose Exhibition*, it appears both appropriate and in season that we should take a *Retrospective Review* of its history, whilst examining the specimens presented to our notice. Brief, of course, this must be, for to go into an extended history of the Rose, in all its associations and connections, would demand an investigation of the histories of all the most powerful nations of ancient and modern times.

HISTORICAL, POETICAL AND ROMANTIC.

History affords no other example of such extended and universal admiration by so many and distinct races of people for any other flower, as has been and is still accorded to the Rose. In proof of its antiquity, allow me to introduce a few extracts from a volume on the subject, published in London this spring, entitled "*The Amateur's Rosarium*." Solomon says, "Come, let us fill ourselves with costly wines and perfumes, let no flower of the spring pass us by; let us crown ourselves with rosebuds before they are withered." The Greeks, like the Hebrews, chose it for chaplets at their banquets, and as a gift most acceptable to those they loved. Anacreon only gave popular customs a poetic dress when he wrote:

"To make the beverage divine,
Mingle sweet roses with the wine,
Delicious will the liquor prove;
For roses are the flowers of love;
And while with wreaths of roses crowned,
Let laughter and the cup go round."

Sappho, the tenth muse, was the first to bestow on the rose the title of the Queen of the Flowers, in the following verses:

"Would Jove appoint some flower to reign
In matchless beauty on the plain,
The rose, mankind will all agree,
The rose the Queen of flowers should be.
The blush of meads, the eye of flowers;
Its beauties charm the gods above;
The pride of plants, the grace of bowers,
ITS FRAGRANCE IS THE BREATH OF LOVE."

It is the Rosa of the Romans, and the twice-blooming rose beds of Pæstum are frequently mentioned in their poetry. When Horace advised his friend Delius to live joyously, he told him to retire into the country, and

"There bring thy wine, thy odors spread,
Let blooming roses crown thy head,
Whilst time and age and life permit."

Has modern philosophy improved on this terse advice of the ancient poet so far as terrestrial bliss and luxurious enjoyment are concerned?

The Rose, by the ancient Romans, was dedicated to both Venus the Goddess of Love, and Harpocrates the God of Silence, and in after times, models of roses were placed over the confessional, as a symbol of silence, whence, undoubtedly, originated the term "under the rose." Newton, in his *Herbal* to the Bible, published in 1587 says: "I will herre add a common countrie custome that is used to be done with the Rose, when pleasante and merry companions do meete together to make good cheere." As

soon as their feast or banquet is ended, they give faithfull promise mutually one to another, that whatsoever hath been merrily spoken by any in that assembly, should be wrapped in silence, and not be carried out of doores. For the assurance and performance whereof, the tearme which they use is that all things there saide must be taken as spoken (under the Rose); whereupon they use in their parlors and dining rooms to hang Roses over their tables, to put the company in memorie of secrecie, and not rashly or indiscreetly to clatter or blab out what they heare."

A relic of this custom is still to be seen at Lullington Castle in Kent, the mansion of Sir Percival Dyke. In its hall is a huge representation of a Rose, encircled by this inscription:

"Kentish true blue take this as a token,
That what is said here, under the Rose it is spoken."

In 1453, the White Rose being blazoned on the shield of Richard, Duke of York, and the Red Rose on that of Henry, Duke of Lancaster, their contest for the crown of England was aptly termed the "War of the Roses;" a war so fraught with misery to England, that Sir Walter Scott's lines are no more than just:

"Let merry England proudly rear
Her blended roses bought so dear."

Roses have been adopted for many ages by the Popes as tokens of their good wishes.—When a Princess of France was married the Pope then reigning sent her a rose which he had blessed. Sergius IV. in the year 1009, is said to have been the first on Christmas night to consecrate roses and other tokens to be sent to those whom he wished to honor. Leo X. sent a consecrated rose to Frederic Duke of Saxony, with the request that he would banish Luther. These roses were made of gold.

OLD TIME VARIETIES OF ROSES.

Perkinson, who wrote in 1629, states there were but twenty-four kinds of roses at that time known in England, including the Sweet Briar. In the quaint style of the day, "I will begin," says this author, "with the most ancient and known roses of our country, whether natural or not I know not, but assumed by our precedent Kings of all others to be cognizances of their dignity, the white rose and the red, whom shall follow the damaske of the finest scent and most use of all the other sorts." Among others of this twenty-four sorts is the parti-colored rose called by some York and Lancaster. The double Yellow Rose is of great account, both for the variety and doubleness "though most of them fall or wither away, so that its shy flowering is not a symptom of declining vigor or forgotten modes of culture." It was first procured to be brought into England by Master Nicholas Lete, a worthy merchant of London, and a great lover of flowers, from Constantinople, which, as we hear, was first brought thither from Syria. It perished quickly, both with him and with all others to whom he imparted it, yet afterwards it was sent to Master John de Franqueville, a merchant, also of London, and a great lover of all rare plants as well as flowers, from which is sprung the greatest store that is now flourishing in the Kingdom.

The Moss Rose was introduced into England

at the beginning of the last century, and first mentioned by Finber, in 1724, and in proof of the little interest at that time felt in such matters, we have no record of the time of its introduction, or by whom introduced. (A proof that the art of advertising was not as well understood in those days as in our own times, as the introduction of Augusta, America, and Gen. Washington will amply testify.)

Having quoted enough to prove the estimation in which our favorite has been held by the master people of ancient and modern times, we will conclude the historical portion of the rose with the observation that the love of flowers has never had the effect of enervating or effeminating the people who have been most given to their cultivation, as the references establish with regard to the ancients, so will the acts and examples of the people of our own days correspondingly prove. Unquestionably, the four most warlike and enterprising people of the present age are the French, English, German and American, and these four nations are as much in advance of other peoples in their practice of horticulture and love of flowers, as in the more rugged walks of commerce or manufactures.—As a practical florist, it gives me pleasure to be able to make this assertion, fearless of being challenged for its accuracy.

PRESENT CLASSIFICATION OF ROSES.

The classification of the different species and varieties of the rose, appears to the present time to have been left to the somewhat arbitrary and varying notions of individuals. I know of no general system having been promulgated by any horticultural authority sufficiently influential to be generally adopted and followed by cultivators universally. A recent English work states the genus to consist of seventy species with numerous sub-divisions.—Buist, in 1844, divided them into classes as follows: Rose Alpina, the Boursault Rose; Rosa Sempervirens, the Evergreen Rose; Rosa Banksiana, the Lady Banks Rose; Rosa Multiflora, Multiflora Rose; Rosa Urbifolia, the Prairie Rose; Rosa Urbiginosa, the Sweet Briar; Rosa Lutes, the Yellow Rose; Rosa Spinossissima, the Scotch Rose; Rosa Centifolia, the Provence or Cabbage Rose; Rosa Centifolia Mucosa, the Moss Rose; Rosa Gallica, the French Rose; Rosa Damascena, the Damask Rose; Rosa Alba, the White Garden Rose; Hybrid Chinese Rose, Noisette Rose; Rosa Indica Odorata, the Tea Rose; Rosa Bomboniana, the Bombo Rose; Rosa Lawrenciana, the Miniature Rose; Remontante or Hybrid Perpetual Rose; Perpetual Damask Rose; Rosa Mycophylla, the Small Leaved Rose; Rosa Maschata, the Musk Scented Rose; Rosa Indica, the Bengal Rose.

To enter into a detailed description of the distinctive difference between these varied classes, would, I consider, be a useless and uninteresting business at the present time. I will briefly mention and endeavor to elucidate from the specimens before us the various classes of the rose here represented, beginning with the Bengal, or, as it is sometimes called, the Chi-

nese Rose; next the Rosa Indica Odorata, or Tea Rose; the Rosa Bonbonienne, or Bourbon Rose; the Remontante, or Hybrid Perpetual Rose; the Noisette. This class originated, or was grown, from seed by M. Noisette, near Charleston, S.C., and is supposed to have been a production of the common China Rose and White Musk Cluster. The distinctive characteristic of this class is the habit of flowering in clusters; but with this habit in common we have three distinctive characteristics or modifications. First, we have the long rampant character of growth as shown by Lamarque, Chromatella, Solitaire, and others; second, the medium, bushy habit of Champrey, Orloff, and Grandiflora; third, the low, dwarf habit of Admiral de Rigney, Amie Vibut, and La Pactole. You will observe that the Class 10 embraces no high colored varieties within its limits, whilst its near congener, the Bengal, is rich in coloring, yet contains some individuals of the purest white. In Bourbons we have every shade of color, from the darkest crimson purple to the faintest blush; but the pure white has not yet been produced in this class.

OLD AND NEW ROSES COMPARED.

In Hybrid Perpetuals we have the opportunity of contrasting or comparing the rose of the present day with those cultivated by and so highly prized by our forefathers, and as this comparison will be of a sweetly odorous character, I am sure, were our ancestors present, they would admit the superiority of the modern inventions. I have an opportunity of presenting some specimens of varieties cultivated to a limited extent in this vicinity twenty-five years ago, and, compared with our now reigning favorites, the contrast is certainly as great as would be that of a fashionable belle in the costume of that date with any of our daughters in the prevailing mode. There is the difference however in the case of the rose—Dame Nature is the modiste. We are not able to name the artist who molds the form in the other case.

CONCLUSION AND COMPLACENCY.

From a personal knowledge as regards England, and a general one as regards the continent of Europe, I feel some degree of local pride, or vanity, if you please so to term it, in stating that but few provincial cities in Europe can surpass Cincinnati in their displays of fine roses of the recent productions; and although our city proper can no longer lay claim to the title of the City of Roses, yet our beautiful suburbs can, upon any public occasion, contribute as many of Rosa's beautiful emblems as any other city in the Union.

Mo. State Horticultural Society.

The regular annual meeting of this Society will be held in the Court House, St. Louis, on the second Tuesday, being the 13th day of Jan. 1863. The members of the Society and the friends of Horticulture in this and the neighboring States are earnestly invited to attend.

C. W. SPALDING, Pres.

WM. MUIR, Sec.

[Written for the Valley Farmer.]

PUTTING UP APPLES.

The best and surest way of putting away apples for winter use is as follows:

Let them remain on the trees as long as it is safe from freezing; pick them carefully and put them in old salt or flour barrels; if the heads have been lost, place a little straw or hay over the apples, and nail a cross of two four-inch boards in the heads. Then select a dry spot in the garden; dig a trench the width of the barrel and half the depth; place some corn stalks at the bottom of the trench; lay your barrels in, and place some crab grass at the sides and top; cover them with three inches of dirt, and lay a wide plank over them, or what is better nail two boards together and let them straddle the barrels which will keep them dry; about the last of November throw 2 or 3 inches more of dirt on them. When the apples are needed for use, take up one barrel at a time and put it in the cellar or other place from frost. Those who may be induced to try this easy and simple method, need not fear an earthy taste of the apples. After a trial of twenty-five years I have not found any reason to abandon this method of saving apples, and consider it much safer and better than any cellar, unless the apples are packed away in dry sand, either in barrels or boxes. Apples put away in this manner should not be removed from the ground until wanted for use. I have known Bellflower apples keep in this manner until January. Those who have not a good cellar will profit by this hint. S.

Florissant, Mo.

[Written for the Valley Farmer.]

MULCHING TREES.

Downing has shown us the importance of mulching fruit trees; and the world has received a vast deal of benefit through the directions of this eminent horticulturist; not only in this, but in other respects.

We believe, however, he has never mentioned grass as a mulch. On the other hand, grass, especially clover, is condemned in an orchard—but we think too hastily. We have a small orchard of old trees, which has been in grass for eight or nine years, with the exception of two seasons, when we put it to grain. The grass is very heavy, and covers the ground thoroughly as with a mat, running up to the boles of the trees. The ground is never dry. The greatest drouth seems to have no effect. This year there has been no rain for two months (August

and September). The trees are perfectly healthy and vigorous, and loaded down with full-grown, perfect fruit. Not the least effect of the drouth is perceptible.

The soil is a deep, rich gravel, giving the roots a chance to penetrate. The trees are forty-five years old, and are thoroughly taken care of. The orchard affords two crops of grass each season. But even the stubble affords a mulch. The grass is Timothy with some clover. The ground is held moist and mellow, aided of course by the shade of the trees, which are large and rather close together.

I am convinced the mulch has an important bearing in the case. And as the trees are doing as well as trees can do, I shall not apply any other mulch than the natural one of grass. I applied the saw-dust one year, and saw no difference: in fact on young trees I think the saw-dust is hurtful. It gathers acid, and this we know is very injurious to trees. We much prefer a coat of lime. Its color is a non-absorbent of the heat of the sun; and its fertilizing effect is in its favor. But for old, deep-rooted trees, give us a pelt of grass (Timothy, not clover). F.G.

WINTER APPLES.—Pick late; keep in a cool place. This is a good practice, and little trouble. After much experiment and anxiety, we find this a good way. After a while, when there are signs of rot, we assort our apples. Once or twice seen to in this way, will do. In this way you pick sound and solid fruit; and you have it solid all the winter through. Even if part of an apple is rotten, the other part will have a healthy, glass-like brittleness. And half such an apple is worth a whole leather one, where the skin wrinkles and the meat is tough, and more or less insipid besides indigestible—difficult of reducing to a pulp.

MULCHING STRAWBERRIES.—Strawberries thrive most in the shade; get sweetest in the sun. Moisture is a necessity to berries—especially should the ground be kept moist in the bearing season. We have seen this thing tested to our satisfaction.

Mulch will do this; and it will also keep out weeds—two things gained by mulching.

Shade moistens; but it is better to keep moist without shade. Sun and moisture are the two grand principles both for ripening and growth, and also for flavor and sweetness. Mulching will aid all this. Who will invent the best method?

[Written for the Valley Farmer.]

The Mo. State Horticultural Society.

[Proceedings continued from Oct. No.]

FALL PEARS.**LOUISE BONNE DE JERSEY.**

Dr. Claggett: Have it upon the quince; a fine grower and fine bearer, with the single objection the fruit is a little astringent; it is a good pear; good size; the fruit will keep sometime after it is gathered.

Messrs. E. B. Colman, N. J. Colman and Pettingill all spoke in similar terms.

BELLE LUCRATIVE.

Dr. Claggett: Find it a fine thrifty grower, a handsome tree, large bearer; rather soft when ripe, does not keep so well as some, and don't bear far transportation; for family use or a near market it is good, on quince; have no experience as a standard.

Mr. Kern: I esteem it as one of the best; it fruits upon young trees as a dwarf.

Mr. N. J. Colman: I think it promises well; I think our experience too limited. Try it, so as to prevent mistakes.

Mr. Pettingill: There must be some members that are too modest to speak out. I have had it in bearing some years; upon the quince it has done very well.

FLEMISH BEAUTY.

Mr. Pettingill: Can't speak in regard to fruit, it makes fine trees; good rapid grower and healthy.

Mr. Flagg: Its reputation in our State is the best of any.

Dr. Claggett: I have fruited it for one year; it has been a little later in fruiting than some; it is said to bear more pears than any other; not quite but nearly the highest flavor; will not bear shipping or keep so long as some others; it is desirable on quince; don't know it as a standard.

ANANAS.

Mr. N. J. Colman: Can recommend it as promising well; early bearer, and fine pear, on quince; it comes up nearly to the Bartlett.

Mr. E. B. Colman: Knows it upon quince; a small grower and large bearer, superior flavor; ripens I think in September.

DES NONNES.

Mr. E. B. Colman: Know it for a short time on the quince; a good grower, beautiful fruit, excellent flavor.

Dr. Claggett: Have eaten the pear, never seen the tree to know it; others think it nearly equal to the Seckel.

Secretary: Has seen the tree and had the fruit; a good grower, and perhaps the finest looking of all pears, fine size and excellent flavor.

President: Read Downing's description where its name is given as Beurre de Brignais.

BEURRE BOSE.

Mr. N. J. Colman: Have seen it as a standard; fine showy fruit, good bearer, excellent quality.

Mr. Reihl: Gave an account of it at Boonville, but upon farther reflection he discovered it was the Beurre Boussock and not the Beurre Bose to which his remarks applied, but had not an opportunity of correcting the statements in the meeting.

WHITE DOYENNE.

Mr. E. B. Colman: I know it upon the quince; it makes a fine tree; bears medium fruit of good quality; have not seen any blight; don't know of the fruit cracking here.

Mr. Kelly: Have seen it crack badly in some localities; it is good when in the right place.

Mr. Reihl: Has seen it in the upper part of this State; does not crack in Cooper county; some bear at 3 years from the bud on the quince; a fine fruit.

Dr. Claggett: Has it upon the quince and standard; on the quince bore fine fruit the first year; it blighted and is nearly dead. The standard is very handsome, and bore a few pears early, at three to four years; this

last year it bore a good quantity; a number cracked, some were scabbed and small.

Mr. Mudd: This is one of the few I have fruited upon the pear and quince; the fruit is the best, the trees were among the best; never have had any cracking; give more fruit than any one pear.

Mr. Sanders: I have seen it for seven or eight years as a standard and dwarf; have seen it raise many barrels without a crack; it gets covered with dark spots which injures the color, but does not injure the quality of the fruit; it is of fair size as a standard, but not so fine I think as upon the dwarf. It blackens as a dwarf; this has a great effect in the market; you can sell a "bright" yellow fruit so much better; its quality is not so good as the Bartlett. In the large trees in Cincinnati I think Mr. Ernst complained of cracking; but in Mr. Longworth's orchard it did not crack; don't know the cause. It was in an old orchard in grass that it cracked so much; without clean cultivation I fear you cannot calculate upon fair fruit. The quality is not affected by this.

President: This tree has just thirty synonyms.

Mr. Pettingill: The fruit on standard has been universally fair, and on dwarf fine.

Mr. Kern: It is in my opinion one of the best as dwarf or standard. If it cannot be recommended for general cultivation I don't know one. The Bartlett may be higher in flavor, but this is not so apt to blight. I have seen this blackness in some localities; but it is no part of the pear; there is great difference in regard to color in different localities.

Mr. N. J. Colman: From it being so hard to get varieties free from blight, I think it might be put upon the list for General Cultivation.

GRAY DOYENNE.

Mr. E. B. Colman: I have planted it upon the quince; tree hardy, not inferior to the White Doyenne, it is greyer, high flavored.

BEUFEN.

Dr. Claggett: I have grown it; is about medium; tree vigorous grower; fruit very fair in form, good flavor, time rather late in September and keeps till October, is an excellent preserving pear from its firmness; a uniform bearer.

President: I have seen it as a standard; among twelve to fifteen sorts, I regarded it the best; it is a hardy, healthy, vigorous growing tree; is uniformly fruitful, perhaps second quality.

Mr. Mudd: This reminds me that we should direct more attention to native than foreign varieties; it is one of the best growers I have. This, with the Reading and also the Howell, is always a fine strong grower. We must look to native varieties to stand our climate.

Mr. N. J. Colman: I don't think very highly of the quality of the Beuffen; I think there are much better pears in quality.

Mr. E. B. Colman: I have it upon standard trees; it makes a fine tree; I don't think it even second quality. When the trees were almost all killed with the blight in Illinois, the Beuffen was uninjured.

Dr. Claggett: There is another important fact brought out: that of noting the qualities of trees and fruit in the same season.

Mr. Sanders: I endorse Mr. Mudd's views upon the importance of native varieties. We had better give more attention to these. There are many valuable varieties but little known; valuable not so much for their fine flavor as for their healthy, hardy, vigorous character.

SECKEL.

Mr. Pettingill: I will give it the standard of excellence.

DOYENNE BOUSSOCK.

Mr. Kelly: I have seen this pear; it is magnificent and grows well.

President: I have seen the fruit; it is large and rather coarse.

Mr. Reihl: (Remarks spoken as applying to the

Beurre Bosc, but it was the Doyenne Boussock.) I saw it in Boonville it was badly affected by the blight. It was planted on a hill with a north slope; they were well cultivated and taken care of, but suffered the worst by the blight that I ever saw.

OSWEGO BEURRE.

Mr. N. J. Colman: It makes a fine tree and good growth, and is a good pear.

NAPOLEON.

Mr. E. B. Colman: I have fruited it upon the quince; fine tree, good bearer; put down as a winter fruit, but it is fall here, late in September to October; medium size.

Dr. Claggett: I have it; tree vigorous grower; an early winter pear; fine size, beautiful, showy; smooth surface, greenish yellow, and as to quality it is as tasteless as any pear; can't recommend it.

DUCHESNEAU.

Mr. E. B. Colman: It is one of the latest pears, and one of the best upon quince; fair quality; a good late pear.

DUCHESSE D'ANGOULEME.

Mr. Pottingill: It is a fine tree; fruit so large it is apt to break the tree down; it does only upon quince.

Mr. E. B. Colman: Same views.

Dr. Claggett: It rather overbears, and makes some very large some very small; would not recommend it for general cultivation; think it coarse, and moderate flavor.

Mr. Sanders: I don't regard its large size as its best recommendation; I think it a good, early bearer; the tree reliable; you can always calculate on some fine fruit, probably of the best quality of any large pear.

Mr. Kern: I think this is the great pear of the day for market. If I would plant an orchard of a thousand trees I would plant 700 of this variety. It stands at the head of the pear line. I have never seen it to blight.

Mr. N. J. Colman: I think it the hardest we have, the one that gives the most satisfaction to the great mass of the people for its early bearing, large size, extreme hardness and healthiness. I can recommend it for the family; but would not plant it for market, it is too large to be profitable; it is rather rough in its appearance, and not of the highest quality upon quince; never saw it a standard.

Dr. Morse: Ten cents a piece is not enough in New York; they sell for twenty-five cents.

Dr. Beale: I saw one sold for fifty cents.

Mr. Mudd: I think Mr. Colman under-estimates the pear on the quince. I think that it will give more satisfaction than any other. Its quality is better than many others. I have some dozen trees planted and I am satisfied that the pears they give, weigh more than all the wood and leaves.

Mr. Quinette: In the South below New Orleans had some of the Duchesse planted out, and they never produced a pear.

Mr. Kelly: It is much complained of around Cincinnati for blooming too early in the spring; it does so here, and is apt to get killed or drop the blossoms, with the cold and wet. I can get the Bartlett and Louise Bonne de Jersey, but never see the Duchesse.

GLOUT MORCEAU.

Mr. Sanders: I think it the finest early winter pear we have. It is charged with being liable to blight. It is freer from blight than the Bartlett; it is a fine bearer, a fine tree, and fine foliage. A more beautiful pear tree is not to be seen. Have seen the fruit in December; fine, yellow, juicy, and as good as the Bartlett in August, and ripens well in the cellar.—Have known it on the quince; known it to blight but once.

BEURRE D'ARENBERG.

Mr. Quinette: It is the best pear I have seen.

Mr. Sanders: It is a good tree; moderate grower; never saw the pear in St. Louis; it is hard to ripen;

fruit rather large; it sells at about \$5 a bushel; will keep till spring.

Mr. E. B. Colman: I have it a standard, never made much of the fruit, they withered; a good bearer, hardy and healthy.

WINTER NELIS.

Fruit small, with a long stem; tree hardy, irregular grower; it is a No. 1 little winter pear. A gentleman had some of his trees fruited; at gathering time, they were hard, put them in cellar with apples and potatoes till late in the winter, when he found the pears ripening a most beautiful yellow, plump and sound. It is the cream of winter pears.

Mr. Mudd: I have it a standard and dwarf. I think it is larger than this; it grows crooked and ugly.

Mr. Pottingill: I knew a farmer who had the Winter Nelis at gathering time, they were so hard he threw them to the hogs; he knows better now; I got some from him, kept them till March, they ripened finely. I sent him some and he thought them the most delicious pears he had ever eaten, and could hardly believe them to be his own pears.

Mr. N. J. Colman: It is one of the most rapid and best growers of all the varieties I have, but hard to keep in form; on pear stock it may be better.

VICAR OF WINKFIELD.

Mr. N. J. Colman: Some five or six years since I procured some trees from A. H. Ernst, of Cincinnati, among them some Vicar, as standards; they did not succeed well, and from what I have seen of it can't recommend it as a standard.

Dr. Claggett: I have the tree, but not in bearing; the tree is a healthy, vigorous grower; the surface of the bark is rather rough, but it does not crack; the bark comes entirely off, leaving the limbs clean. The tree is rather large, growth long and slender.

Mr. E. B. Colman: I have seen it ripen in Burlington, Iowa, in October. It ripens in the South in August.

Mr. Sanders: It is a fine pear on quince, but the fruit shrivels.

EASTON BEURRE.

Fine tree, healthy, hardy, good size and fine fruit.

Dr. Beale: Has the tree; made small growth, had fruit, but they were taken off; have of the same age much larger and finer trees.

Mr. Pottingill: Have it as a standard and dwarf; it makes in both cases stunted trees.

PRINCESS ST. GERMAIN.

Mr. Mudd: Said to be hard to keep; but keeps well with the same care as apples in the cellar.

RIPENING AND KEEPING WINTER PEARS.

Mr. Quinette: The best mode is to put them into barrels with a layer of cloth between each layer of fruit, and keep them well from the air; in the air they will shrivel; pick them and put them into the barrels and head them up; keep them in a cellar with the temperature at about 60°. I have ripened the Vicar of Winkfield in this manner without shriveling; would remove them when nearly ripe into a higher temperature.

Mr. E. B. Colman: Pick before ripening is best for all pears, and ripen in the dark, and they become a brighter yellow; they don't ripen at all well in the light.

Mr. Quinette: In shipping all fruit East or South, I hardly ever put holes in the barrels, and they are taken out in a more clean, full and saleable condition.

Dr. Claggett: In regard to fruit shriveling, I have seen Frenchmen with samples of fruit sealed up at the point of the stem. I think that much of the moisture escapes from the stem: it gets in by the stem.

Mr. Quinette: You may take any fruit that is sweating and the stem dries up; the moisture certainly does come from the skin.

Mr. Sanders: The winter pear is more valuable than any other. The Winter Nelis is of all the most valuable; keep them in a place where there is as little

atmosphere as possible. Winter pears have a thick skin, much more so than the apple; keep them cool and damp, and bring them into a higher temperature when you want to finish their ripening.

President: I ripened four or five varieties two winters ago by a darkened fruit-box, placed in a dark closet. The Winter Nellis did very well; Beurre d'Arenberg on the surface seemed shriveled, but of excellent quality; Beurre d'Easter did not ripen well at all. Had the Lawrence, which grew well, but seemed too ripe when picked.

Mr. N. J. Colman: I have been told by a gentleman that the best way to ripen the late varieties, was to put them in the cellar and cover them with the potatoes; when you take away the potatoes the pears will be in fine plump condition. Sometimes it is not necessary to take them into a higher temperature; this is only necessary with some varieties. If they are put through the sweating process like apples, pears will keep as well as apples; keep them excluded from the air.

Mr. Quinette: The keeping them among the potatoes keeps the moisture in the pear.

President: Single specimens do not ripen well by themselves.

Mr. Flagg: The principle of artificial ripening and preservation of all fruit seems the same. Keep at a low temperature, rather moist, and free from the light. I think this holds with grapes as well as other fruit.

Mr. Quinette: Pick the fruit from the tree when you see it begin to ripen; if there are a dozen fit to eat, take them all down.

Mr. Flagg: I endorse this in regard to summer pears; pick the fruit when the seed begins to turn black.

STRAWBERRIES.

WILSON'S ALBANY.

Mr. N. J. Colman proposes this variety for market and family.

Dr. Morse: Not for family, for market only.

Mr. E. B. Colman: If I planted a small patch for the family, would plant Wilson's Albany, for it produces more fruit in the same space than any other. Triomphe de Gand is a better fruit; so is McAvoy's Superior and Walker's Seedling.

Mr. Pettigill: Is the Wilson not liable to be affected by drouth more than many others; this has been the case on our prairies, while McAvoy's Superior and other varieties did well.

Mr. E. B. Colman: It is a strong grower; roots deep, and with me stands the drouth better than some other varieties.

Dr. Morse: The ground upon which my strawberries are planted, is a south-eastern exposure, with gravelly sub-soil. I did think that Wilson suffered more than some others from the drouth.

Mr. N. J. Colman: I proposed the Wilson's Albany for market and for family, because it is more productive and harder than any other variety, and when fully ripened the flavor is good. If persons take it when it is just colored, it is too acid; but let them remain upon the vine till fully ripened and it is good; it may be a little too tart, but its other good qualities make up for that. It is a good grower upon all soils. I have had fifty varieties in cultivation, and it is the most productive of all. It is true there are varieties possessing better flavor.

Dr. Claggett: I cannot say it is the most productive bearer. I would be extremely sorry if this Society would recommend any fruit of a doubtful character, and it is extremely doubtful if this is a good berry for family use.

Mr. Mudd: The Wilson looks so very well, and seems to promise so much that it always deceives me; I think it a cheat every way. I think one berry a day is enough for me; it must be dead ripe before gathering.

Mr. Flagg: I have heard it complained that it had too short stems.

Mr. E. B. Colman: That is an objection.

President: As I have met it in the market it is not fully ripe; when it remains on the vine till the seeds are brown it is much better.

TRIOMPHE DE GAND.

Dr. Morse: My experience with it is satisfactory so far as it goes. I fruited it last season. It is large, and of superior quality; it will prove at least a fine fruit for the family.

Mr. Sanders: My experience with it is limited; I have a dozen of the new varieties and think it good; it may be coarse; is rather late; takes a long time in ripening. I don't think it better in quality than McAvoy's Superior.

Dr. Claggett: As it is not yet well known, put it on the list that Promises Well.

Dr. Morse: My experience is not as great or varied as Mr. Sanders', but as between this and other varieties that I have tried, it pleases highly, and it is a Hermaphrodite plant.

Mr. N. J. Colman: I have not had much experience with it, but think it will come into favor. The berry is very firm, of uniformly large size, quite sweet, without possessing the highest flavor. It will bear about half as many as the Wilson's Albany will produce.

McAVOY'S SUPERIOR.

Dr. Claggett: For market and family, this is a superior variety. A large grower who has it in the market for sale, says when the other varieties bring fifty cents a gallon the McAvoy brings eighty cents and sells quicker.

Mr. Sanders: My experience with the McAvoy is it is too tender a fruit, and in drouth the berries are small.

Mr. E. B. Colman: It is a strong plant, a fine grower, a good bearer when a young plant or along with a staminate variety, and there are certainly some educated tastes that will want it; but it is not the berry for the masses like the Wilson.

Mr. N. J. Colman: Its quality is good, it is quite productive when mixed with plenty of staminates, but I prefer hermaphrodite varieties to pure pistillates.

LONGWORTH'S PROLIFIC.

Dr. Claggett: It is a good fruit, fine bearer, can be shipped long distances, but seems apt to be killed out; it is worthy of cultivation; is rather earlier than the Wilson.

CREMONT'S PERPETUAL OR IMPERIAL.

Mr. E. B. Colman: I received this under the name of Cremont's Perpetual, and have cultivated it for some time. I find it in Prince's Catalogue, and he condemns it; but as there are grave doubts as to its really being the Cremont, I called it the Imperial. The fruit is larger than the Wilson's Albany. It don't propagate as rapidly as most other varieties; has a long stem, and is easily picked; of excellent flavor; bears carriage very well; have had it four to five years; the old plants produce as well and of as fine flavor as the young ones.

Dr. Claggett: It is a fact stated to me by one of our best and most extensive strawberry growers (Mr. Quinette), that from the old plants you will get more and better fruit if the earth is kept up to the plant by the hoe; that it is the heaving of the ground in the winter, that injures the plant and causes its roots to dry out: this is worthy of the attention of growers.

Mr. N. J. Colman: There is an objection to this variety; it is apt to be hollow. Large varieties are almost always so. I think it lacks flavor; it certainly does not possess high flavor. The Society should condemn this change of name without authority. It is Societies that change names. I have no right to do it. It is an injury to all by the confusion it creates.

Mr. E. B. Colman: I found that my plant did not correspond with Cremont's Perpetual, so I gave it the name, and it is now known in this locality as the Imperial. I received it from Mr. Thorp, of Syracuse. They are large berries and of superior flavor. There was such a demand for the plants, I had to retain the old plants without renewal, and hence discovered the

superiority of the old plants. It is a Hermaphrodite.

Mr. Quinette: As to the best varieties for market, there is much difference of opinion and much depends upon the market itself. I have found the McAvoy's Superior the best, and have cultivated it for ten years; have found it a uniform bearer, hardy and productive; brings the best price, and with me bears more than Wilson's Albany. I raise a large quantity (16 to 18 acres). I have 3 to 4 acres in a patch, and find no difficulty in fertilizing them when grown along with large patches of other varieties; I think it is harder to fertilize a few rows in the garden than a 4 acre piece in a large plot. The berries are as well fertilized and as large in the middle of a 4 acre lot as on its edges. The farther south you get, you have to be the more careful to get fertilizing plants among them. The plants are more or less developed as staminate and pistillate: There is no such thing as a strictly male or female strawberry plant. In ten years I have raised dozens of varieties of plants, and in five or six hundred plants you will find all kinds from the entirely barren to the perfect plant. I have gathered 160 to 164 bushels to the acre. Triomphe de Gand would not give 60 bushels to the acre. In Ohio and from this farther north, the McAvoy is good; take it south and it is worthless. Plant in rows 3 feet apart, and dig between the rows for two years. It roots deeply, and when the ground is frozen and the plant heaved up, the fine roots are broken and you have fine blooms, but no fruit. This is the great trouble—to prevent this entirely. We have had ground 15 years in strawberries, and as the roots go deep into the earth we must work the ground very deeply before planting to have space for the roots and a reservoir for water. I manure with lime and ashes; stable manure is too stimulating; 20 bushels of lime, 8 to 10 of ashes, and 5 of salt to the acre. If in a new plantation plow in. If put early in spring on the ground so as to have the rain wash it in, you will observe its good effects. I have tried it from the kiln and from the soap-factory, but like the air-slacked best. I use the salt as a cheap mode of getting soda, as soda is a specific manure to the strawberry, and salt is much cheaper than the carbonate. I substitute the "Chloride" of Sodium for the carbonate. In growing, the strawberry forms a bulb; you must have a bulb before you can get fruit. Every year it makes a new bulb, pushing out just below the old one; from it the roots are thrown out; about the fourth year, the pushings of the lower bulb throws up the plant, exposing the upper part of the bulb and its roots. If you can put it down into the ground, or protect and nourish it by drawing up the soil to the neck of the plant, the old plant, having a larger reservoir of material, will bear more and finer fruit than the younger ones, and I much prefer them to new plants. I make the beds 5 feet wide, and the plants about 10 inches apart, keeping the beds about 3 feet apart. The plants will make the bed about 5 feet in one season. I never cultivate in the spring. If there is grass or clover in the walks I take it out when they are done bearing. I work between the beds and cut down all the weeds to prevent them going to seed. I have some about 14 years old, and do as well as at first; I see no difference. I never let the weeds go to seed, but take them out; the work is then easy after the first two or three years. If you plow the ground, you will have a large crop the first year or two, and your plants never bear as well as the second year. My soil is not the best. A rich, light soil is best, upon gravelly bottom; will raise more to the acre than my soil; I thin out the plants to 8 or 10 inches apart. My beds have never been plowed in this time.

Mr. N. J. Colman: I do not like Mr. Quinette's system. I believe in the rotation of crops of all kinds. Without the bountiful application of fertilizers, the plants must diminish in size and productiveness. No crop can be raised for so long a time on the same piece of ground without abstracting from the soil, almost entirely, the ingredients upon which it is produced.

It also is opposed to the theory of cultivating—stirring the soil, and working it deeply. The soil left undisturbed for twelve or fourteen years must be in a very poor condition for producing any crop.

I believe the most profitable as well as the easiest way of growing strawberries will be to plant more or less largely every spring. Your first crop is usually your best. Mine are almost invariably so. If the weeds are not very troublesome, you can raise two crops, or perhaps three, before plowing up the plants. A crop of potatoes or corn can be raised on the same ground the same season, by plowing immediately after the last crop is gathered. It is but little trouble to plant out strawberry plants by the acre. I would rather put out an acre of strawberry plants than an acre of cabbage plants. Mulching is another very important item in strawberry culture, as well as in the culture of all small fruit. By mulching, the ground is kept constantly moist—and strawberries require this. The bad effects of drouth are thus prevented. Double the quantity at least can be produced from the same ground when mulched. The berries are kept clean and will also ripen earlier. My soil is different from Mr. Quinette's and perhaps requires different treatment—but I certainly think my system of culture preferable to his.

[To be Concluded next month.]

[Reported for the Valley Farmer.]

Meramec Horticultural Society.

ALLESTON, Oct. 2, 1862.

The forty-sixth monthly meeting was held in the house of Mr. Wm. Harris. The President in the chair.

The minutes of the former meeting were read and approved.

The Report of the Delegate of the Society was accepted and an abstract ordered to be put on record as follows: "Your Delegate arrived at Chicago Sept. 8, but in consequence of the hall engaged for the Exhibition having been occupied the week previous, nothing could be done in preparation for the Exhibition till Monday, and it did not properly commence till Wednesday. The lower hall was devoted to flowers and ornamentals, of which there was a fine display. Some of the articles were magnificent, but cannot even be named in detail. The collection of the plants exhibited by Mr. Thompson was as curious as interesting, and must have been obtained at a great expenditure of time and money, and requiring a great deal of care in their management, comprising all the rare articles of diet, dress, and drink. The private gardens and professional establishments did themselves much credit by the display; while the industry and skill of Mr. Louis Pantelen, exhibited in the Floral Temple, which formed the central ornament of the hall, cannot be too highly commended. The exhibition of fruit was good, and the tables formed a valuable place for obtaining a correct idea of the influence of soil and climate upon the development of fruit. The same varieties being on exhibition from Southern Illinois through all the varieties of soil and climate to Northern Illinois, including Iowa, Wisconsin, Michigan, Indiana and Missouri. The fruit from South Pass was superb in size and color, and had a marked advantage in the degree of ripeness over the more northern regions. The collection of apples of Mr. Smith, of Des Moines, Iowa, was a fine lesson in varieties. In grapes, the collections, although not large, showed that the attention of the community was being awakened to the importance of that branch of horticulture. The collections of pears were fine, and some of the specimens of amazing size. Peaches were not as extensively exhibited as they might have been, but the samples were truly excellent.

The general attendance was good under the circumstances in which the country is placed, and was composed of the more highly developed mind in the com-

munity, as is always the case with exhibitions of so purely a moral and intellectual a character; but it would have been better for the finances of the Society and vastly more for the well-being of the community at large, had the mass of the people taken more interest in the labors of the Society.

The discussions of the Society partook somewhat of a desultory character, in consequence of the almost impossibility of having a large public exhibition and discussions proceeding at the same time.

For the kind attentions of all the members whose acquaintance we made or renewed, your Delegate feels deeply indebted.

Your Delegate especially regrets that existing circumstances prevented the exhibition of our own Society and entirely precluded the action of the committee appointed to collect samples of fruit for exhibition at Chicago, and takes this opportunity to thank Mrs. J. C. Blakey, Hon. P. Tippet, Messrs. Philip Tippet, Jas. Shields and P. M. Brown, for their kindness in supplying specimens of fruit, and Mr. J. S. Seymour for the sample of his excellent Blackberry Wine.

The annual meeting of the Illinois State Horticultural Society, will be held at Bloomington, Ill. during the winter. Of the time, due notice will be given, to which the members of our Society were warmly invited.

All of which is respectfully submitted.
Wm. Muir."

REPORT OF FRUIT COMMITTEE.

The Fruit Committee finds a very respectable show of fruit upon the tables. Of apples we have some very fine specimens.

The orchard of P. M. Brown is well represented by fine specimens of Orley, Summer Rambo; Pryor's Red, Fall Queen, Pottinger and Rhode Island Greening. L. D. Votaw has 4 varieties of very good seedlings. Mr. Davis has English Golden Pippin, Peck's Pleasant, and one unknown. Wm. Harris has Black Gilly Flower, Janet, Winesap, Pryor's Red, and a seedling from the largest tree we have ever seen, measuring 26 inches in diameter at the ground, and 22 inches diameter at the forking; the head spreading over a diameter of 50 feet. The tree is about 50 years old and perfectly healthy. Also a very fine collection of cultivated Papaws. T. R. Allen has Rambo and Pennsylvania Red Streak. Dr. McPherson has Rambo, and 4 varieties not known. P. M. Brown and E. Vaughn have very large samples of Quinces. Mr. Allen has White Doyenne and Belle Lucrative Pears. Mrs. Blakey sends us two very large specimens but so badly damaged in carrying as not to be recognized. The Secretary has White Doyenne. Mr. John King shows very fine Heath Cling Peaches. William Harris has three varieties, two of good size and appearance but coarse and acid, and a pure white seedling, small. Mr. Allen has the Clinton and Isabella Grapes. A. W. McPherson, Chairman.

REPORT OF THE FLOWER COMMITTEE.

A fine bouquet by Mrs. Turpin; a very large Coxcomb by Miss Mary Harris; a tastefully composed hand bouquet by Mrs. Dr. Beale, No. 1; and a very fine fancy basket, composed of scrapings of horn and flowers, tastefully filled with tomatoes in variety, by Miss Josephine Davis, which exhibited a great deal of taste in the combination of simple articles, producing a most pleasing effect and forming the key to a great variety of beautiful household ornaments. Wm. Muir, Chairman.

The Executive Committee called up the "Report of Committee on Summer Pruning," as the subject for discussion at the next meeting. Adopted.

The President called the attention of the Society to the marked consideration and attention of Mr. McKissock the enterprising Superintendent of the Pacific R. R., in presenting to a number of the members and officers of the Meramac Horticultural Society trip tickets to the Hermann Fair, adding another to the many tokens of the interest felt by that Company in

the Horticultural development of the country. This was the spontaneous act of the Superintendent, and the more merited the esteem of the Society.

The meeting adjourned for dinner.

On resuming business the President called attention to the small Snow White Peach brought here by Mr. Harris, and extensively raised all over this and the adjoining counties from the seed. Some are dry; but when they are fine-grained, white and juicy, they are very valuable in the family. They are hardy, generally regular annual bearers, perfectly white to the seed, sweet, free, and coming so late are of great value for preserving and for making brandy peaches.

Dr. McPherson also considered them worthy of cultivation, but found great differences among the trees raised from the seed. They were generally small, probably from the entire want of care in their culture, and from the want of thinning.

Dr. Beale: Finds them very regular bearers, and the fruit generally good; his family esteems them for drying.

Secretary: There are many good late peaches of this and the Heath varieties, which it would be better to bud from than raise from seed. They vary so often and so widely, that the best should be selected and propagated, and not recommend promiscuous seedlings of but few permanently good points. White fleshed, late peaches were in great demand in market for preserving.

Dr. McPherson thinks the Heath produces very uniformly from seed.

Mr. Allen thought it advisable to have a committee appointed to find out the individual trees it would be desirable to propagate from, and proposed that the President, Secretary, and Mr. P. M. Brown, form said committee. Adopted.

Dr. McPherson referred to the very large quinces on the table.

Mr. E. Vaughn had raised several bushels, some large and fine, some small and having small black spots tending to rot; had some at Hermann that were much thought of there; trees 4 years planted. One small tree had 20 quinces, the smallest of which was equal to those on the table.

Dr. McPherson had visited Mr. V.'s quince orchard lately, and thought the trees the handsomest he had seen.

The President announced the next meeting to be held at the house of Dr. J. B. H. Beale, at Eureka, on the first Thursday of November, at 10 A. M. On motion the meeting adjourned.

WILLIAM MUIR, Secretary.

FLOWERS.—We doubt if any means of educating and refining the taste of children is more potent than the flower garden. There is cultivation of mind and heart in the care of these beautiful plants. We know that many despise the flower border because there is no pecuniary profit in it. They can understand the language of clover heads and red-top, of the spikes of maize and the potato vines, for these products of the soil will sell in the market. "But what is the use," say they, "of your pinks and roses, jonquils and tulips. They look well enough, but won't fetch a red cent."

And it is because they look well enough, that we would have flowers around every farmer's house. Pray, what has the Creator given us eyes for, and the sense of the beautiful, if they are not to be gratified? Roses are certainly more beautiful than red cents, and, if they have the opportunity, the hearts of our children will go out after them more spontaneously. No wise father will grudge the labor and expense, necessary to form these cheap bonds of virtue around his home.—[Agriculturist.]



[Written for the Valley Farmer.]

IS DIRT UNHEALTHY?

Much stress is laid upon cleanliness; so much so, that dirt is considered not only a thing that should be avoided—on the score of filthiness—but that it is positively injurious to health.

Now even the Devil should have his just due. Dirt is to be avoided; cleanliness is a virtue. But when it is said, and by philosophers, that dirt, in its various forms, is unhealthy, the whole truth is not stated. The fattest and healthiest nations are the dirtiest and greasiest. The dirtiest children are the ruggedest. I know that this is denied. But no matter. I could wish that cleanliness contributed to health as well as to the satisfaction of being clean. But my observation has led me to a different conclusion. The Esquimaux is not only filthy, and never washes himself, but takes pains in greasing himself over with a thick coat of grease; and yet he thrives and waxes exceedingly fat under this barbarous practice.

We know not how true it is that dirt, the refuse from the skin, has an important bearing, in connection with electricity, upon the body, and thus upon the health of the individual. It is said—to speak plainly—that a dirty shirt has an attraction for electricity, and that thus charged, it acts as an armor to protect the body, and to invigorate health. We have seen treatises wherein the daily change of linen is reprobated—on this principle of electricity. But, in defiance of this, our beds and clothes must be aired daily; our children thoroughly washed (as well as thrashed); and fresh air! fresh air, is the cry now-a-days. To this effect, windows are raised to their utmost extent, or, more modern, let down, so that the air may dart upon your head.

Now, all this may be good practice in the main. But it certainly has been abused, as good things are apt to be. In trying to hit this good mark we overshoot. Dirt must go out of the world; we'll none of it. And so we betake ourselves to scouring; and we scour and scrub

till we find our bodies attenuated, and our health, it is to be feared, accordingly.

It is a sweet thing to be clean. We love to see neat people. But, does philosophy teach us that to be clean is to be healthy? If not should we act to our injury?

Remember, we are not pleading for dirt. We wish to know, honestly, and for the truth's sake, if to be always clean, rigidly so, is healthier than to be less careful about it.

The thing looks much as if nature held dirt in less abhorrence than we do. It knows only facts—while we are fastidious. If our taste—our view rather—is false; if dirt is not a thing to be dreaded; if we should permit less ablution, less exposure to “fresh air”—then what? continue to scour and expose ourselves? We will venture to say yes, if our constitution is vigorous enough to maintain good health. But to those who are inclined to be invalids, we would say, be not so over-nice, health first.

In the summer, clothing should be oftener changed than in the winter. This, we believe, all will admit. Not that oil (from the skin) protects from cold; but that oil undergoes less change in cold than in warm weather. This emanation from the skin, in itself, is not more filthy than the transpirations of trees! But our habit has led us to hold it differently, just as the Esquimaux's habit has led him to think differently. You see it is a matter of habit; though it must be confessed it is an agreeable habit—to those who are not too lazy. We heartily go for the habit, the civilized man's habit, so long as it does well by us.

Let us however remember that even the greatest good is carried too far. “Too far” is hurtful at all times and in all cases. Give us health first, and a clean conscience to direct it. We are safe when this housekeeper (conscience) approves our actions.

We know, for a positive certainty, that the “fresh air” hobby is carried too far. Health is injured, and even life endangered, by too much fresh air. Colds are taken, inflammation ensues, and death follows the indulgence of too much fresh air. The great maximist himself (Franklin), died from too much air—too much air at the wrong time and in the wrong place. There is too much air when it amounts to exposure. Otherwise there cannot be too much. More deaths occur from too much air than from too little. It is the one grand source of bodily ills and premature deaths. It is the more dangerous that it has an insinuating freshness about it, an air of health.

Give us fresh air—delicious sweet air that invigorates, that freshens the cheek and brightens the eye (in addition to exercise). But do not say that air not quite so fresh is injurious. The lungs take the oxygen; but there is no authority for saying that they take anything else, any impurities. We know that the lungs exhale noxious gas formed in the system, instead of taking it in. Why not retain what is there already, if the lungs take it in?

We have observed closely the effect of air upon the system, and we are assured that the fresh air theory is carried too far. To be sure, it is pleasant. But that is the very reason why we should distrust it. It has become a mania. Well, it is a mania in the right direction, you will say. It is, providing it is true what there is said about it in its favor. But if not true, what then? We have asked this before.

See what trouble physicians have with consumptives. They are afraid of the warm, mild air of the room. The healthy person is permitted to inhale it; but the invalid, he must have fresh air. Well, the fresh air will stimulate him. Its coldness will do this. That is all. It is like the brandy which is a favorite resort with doctors, to keep up the powers of life. Some dispute this efficacy. The efficacy (of cold air) is that of all stimulants. No more. Then, there is its deleterious effect.

Again we say more die from exposure to fresh air than in exclusion from it.

If you inhale foul atmosphere, the lungs take the oxygen (what it wants) from it, as the magnet takes particles from the dust heap. It leaves the impurities where they were before, to be returned by the breath. There is no injury received by contact. They are too much diluted for any injurious effect whatever.

We prefer a room of fresh air: we always seek it: we gauge our windows, and doors and ventilators, to that effect. We do it less for absolute need to health, than for the pleasant thought the consciousness of fresh air affords us—for we are rather poetically inclined. But we are very careful not to let in too much of the good creature. We look to our health first, our comfort second. More particularly, as we are apt to take cold, we prefer to keep in a comfortable room.

The foulness in your room is more in your eye—depend upon it—examine it—test it. Take your chemical apparatus, if you are incredulous otherwise.

We have written thus what we have for a long time been wanting to write. We have

done it with full consciousness of the opposition we are liable to. But we have done it with a view to communicate a benefit. F. G.

[Written for the Valley Farmer.]

A MORNING REVERIE.

BY MARY A. GARY.

The pearly white mist hangeth over the hills
In a circlet of silvery light;
Its drops were showered down from some angelic wings
That have passed in the dark, stilly night.

My fancy brings up sweetest visions to me,
As I gaze on the sun-gilded mist,
And breathe the perfume of the myriad flowers
That its dew-dropping lips must have kissed.

Methinks it is somewhat like childhood's first hour
When Hope o'er the young spirit holds away,
Until the warm sun of mature after-life
Dooms the hopes of our youth to decay;

Awakes us from dreaming and scatters away
The bright innocence, trusting and truth,
That like a pure dew-mist envelopes our hearts
In the sinless beginning of youth.

Methinks it is also like faith and like joy
That enliven the tired pilgrim's soul
When passed are the most of the turmoils of life
And he's nearing the infinite goal.

The flowers of his heart have grown dusty and dim
And his feet become worn with the strife—
But softly falls down on his parched, weary soul
The sweet drops of the River of Life.

They brighten his way as the dew does the flowers,
They dispel the warm rays of life's sun,
And soon like a mist rise aloft with his soul
To the Heaven where all conflicts are done.

My thoughts too are mist-like, for soon busy care
Must drive their sweet dreamings away,
And fancy's illusions be all cast aside
'Mid the trials and toils of the day.

Yet Father, above, may the dews of thy grace
Rest on me as a flower of thy love;
And when all the drops of thy love are exhaled
Take me up to thy garden above.

HOW TO BEAR THE LOSS OF FRIENDS.—Keep the loss out of your mind as much as you can. To this end, apply yourself to your business; or go into society; or do something that will occupy your attention instead of your bereavement. If you are weak in body and sensitive, it will be more difficult. But it is the only remedy. If practiced, it will soon become an easy and thoroughly effective remedy.

CUSTOM.

The first snow surprises us; it is so beautiful. So with the first flower of spring; so with the rainbow; the new moon. To meet a well-beloved face after a long absence, is a pleasure.

Yet we get accustomed to the snow, the flowers, color, the moon, and even the beloved face—and there is little surprise.

Custom does this.

The first sight of a storm at sea is a terrible thing. Yet the sailor is unconcerned: he is accustomed to it.

Do we see in this Custom a powerful aid in life? Think of it: the world's doings are done by custom. Hence it is said, we are creatures of habit. What we then need, is to habituate ourselves to a thing. We can then do it with greater ease and more facility.

We little realize how much there is in this little word, habit. It extends to secret influences; and is one of the great secrets of success. Habits of mind is a lever, as well as habits of hand. We never could walk were it not for habit. We never could think were it not for habit. Habit is facility. Facility is the railroad, the telegraph.

Few, however, see the secret power of habit as it influences the mind. Through it anything can be done. The intelligent student sees it in his chance, as he does in everything that pertains to his success; for it requires all the aids to succeed eminently, especially when so much rivalry exists, as now-a-days.

The habit of public speaking is necessary to the orator. The habit of versifying is necessary to the poet. The habit of writing in general is necessary to the writer. Hence, all our great poets have been early writers of verse; our men of eloquence spouters from boyhood up.

The astronomers—see what great mathematicians they are—how familiar with numbers and calculation. They will make a difficult calculation as soon as you can do a sum in addition. Euclid is a spelling book to them. It seems strange that a man can become so familiar with the intricacies of mathematics.

Custom does this.

How easy it is to do evil when we are accustomed to it.

The thoroughly practiced swordsman can hardly make a false move. The hunter seldom misses his aim: the finger touches by instinct when the aim is right. There was a time when the swordsman and marksman were as bungling as you or we.

Here then is a secret of success, open to all

who choose to avail themselves. Two things are requisite to make it available—time and labor.

[Written for the Valley Farmer.]

COOKING TOMATOES.

A most delicious fragrance is stealing through the room. The sun is bright, and the great windows let in this pleasant autumn air. But that is not the fragrance. That is cool and sweet and refreshing. The scenery is also most pleasant. But there is something more interesting, a gastronomic interest, which, after all, is the chief thing, say what we will to the contrary.

The fragrance emanates from the stove, from a common dish of *love apples*—that it should be—that it once was—though it is now vulgarly called tomatoes; the detestation of many; the love of more; the nectar, the ambrosia of a few, who know the secret art of serving aright, this common potato-related vegetable.

Served raw, sliced and seasoned, it has its admirers. Cooked, it is also eaten. But reduced to a concentrated liquid, the pure extract of this prolific, shining fruit, boiled and simmered for hours, then seasoned—this is living on ambrosia.

Select ripe tomatoes, skin them, boil them in a covered dish one hour and a half; strain in a loose-woven cloth, so as to keep the seeds and the coarser parts of the fruit in; set on the stove again, simmer for two hours in an open vessel. Add a little fresh butter, salt, pepper and sugar. Then eat, but not too much, as there is virtue in such concentration.

Heat is necessary to drive out a sort of flat, sickish taste which makes the tomato to unaccustomed palates, a distasteful dish. Evaporation will obviate this, and leave a rich, flavorful acid, which is not surpassed by any tart preparation. In this condition, the tomato has so changed, or is so purified, that it is no more the same sickish, poisonous fruit. It is said the tomato, like the cabbage, was once reckoned among the poisonous plants; that cultivation has relieved it of most of its poisonous property by dilution. Heat makes a finish of what poison yet remains.

If you choose to be fastidious, leave out the butter, and strain through a close cloth. You will then get the pure liquid extract. Simmer well down; but don't burn. Reducing in this way, by heat, is the only true way of treating the tomato.

F.G.

It is the sick only that appreciate sickness. They also, only, appreciate health.

[Written for the Valley Farmer.]

AUTUMN.

Summer has gone. That season of brightness and beauty has passed away. The bright fragrant flowers that smiled along our pathway have vanished like the happy hours that were spent among them. The gladsome notes of the light-winged songsters are no longer heard, carolling their Maker's praise; they have deserted their forest home, which is already unroofed by the blighter. Dark, heavy clouds have obscured the glorious sunlight, and the death-white frost supplants the sparkling dews that jeweled every leaf and flower. The zephyr breath that cooled the brow and fanned the cheek, has given place to the bleak wind which is singing dirges in deep-swellings tones, over the desolations of valley and hillside, forest and garden.

Dear ones, too, whose love-lit smiles shed a joyful radiance over life's toilsome way, have, like the transient summer, passed away, leaving us with lone and bleeding hearts to mourn over blighted treasures—but the Heavenly hope of immortality shall console us.

So surely as the spring returns with its genial and vivifying influences to recall the flowers to a new life, so surely will those dear ones be awakened. "The seed is in the core, its germ is safe, and Life is in that germ." In this we cannot be mistaken, for God's Word hath declared it.

We may not mourn then for the summer joys that have fled, but rather turn to that glorious light that points to the brighter joys of Heaven, where there are no clouds of sorrow, no frosts of disappointment, no chilling winds of adversity, but where "Flowers smile in immortal bloom, and loved ones never die." H.C.

FAVOR THE EYE.

The eye is one of the most sensitive organs; easily injured, and not easily restored. It is made for the light, and has to do only with the light. The light therefore influences it.

Weak eyes are common in old age. This is owing to abuse of the eye, and can be avoided. The rays of the sun hurt the eye when they fall suddenly upon it: they strain the pupil in its act of enlargement. So with all strong light when suddenly falling upon the eye.

A uniform light is seldom injurious, even if strong. Still, a strong glare of light is hurtful, and should at all times be avoided. To this end a front piece should always shade the eyes.

Some wear a light cap or straw hat at the desk to shield the eye from the strong gas-light, or from candle-light in general.

Some acquire the habit of sitting with the back to the light. This is a good way when reading. In writing, the eye should be shaded. To save the eye fully, study by candle-light should be avoided, as well as sewing or any thing that is an effort to the eye. This straining the eye is at all times hurtful, whether by candle-light or sunlight. Too fine a thing should not be scrutinized, especially should not a habit of such scrutiny be indulged in.

The sudden opening of the eye in the morning, when one wakes, is very injurious. Rubbing it at the time, unless very lightly, is also hurtful. Open the eye gradually so that no pain or little is experienced. Pain is a good monitor. But the pain should be avoided.

Students are very apt to injure their eyes—and the premature wearing of spectacles is the result. Favor the eye; and do it before it is too late. Let there be a uniform light; not too strong, nor too faint.

Some make it a custom to study, or write, or sew, until late at night, until the eyes begin to ache: this is very injurious. A little rest and a slight rubbing of the eye will give relief for a while. But it only mitigates the evil; it does not cure it. Avoid late sittings, therefore, if the eye is employed. If you do not avoid it, you will soon permanently injure the eye; and this would be a regret that is bitter enough.

THE DOLL.—No one has said it better than the doll-instinct is than Victor Hugo:

"The doll is one of the most imperious necessities, and at the same time one of the most charming instincts of female childhood. To care for, to clothe, to adorn, to dress, to undress, to dress over again, to teach, to scold a little, to rock, to cuddle, to put to sleep, to imagine that something is somebody—all of the future woman is there. Even when musing and prattling, while making little wardrobes and little baby-clothes, while sewing little dresses, little bodices, and little jackets, the child becomes a little girl, the little girl becomes a great girl, the great girl becomes a woman. The first baby takes the place of the last doll."

"HUMOROUS CLIPPINGS."—Speaking of humorous clippings, as Mrs. Partington said when she opened the door, looking back, holding the door in her hand, "Them's a new kind of sheep. I reckon, as I have not yet heard of any humorous blood, though I have heard tell of rumors in the blood."

Editor's Table.

A \$65 PREMIUM FOR THE BEST ESSAY ON THE CULTURE AND MANUFACTURE OF SORGHUM.

In view of the great importance which Sorghum Culture and its Manufacture is rapidly assuming, and the great dearth of reliable information suited to the wants of our Western farmers, we have concluded to offer the above splendid Premium, to consist of a **Singer's Letter A Sewing Machine**, to the writer of the Best Practical Essay on the Culture of Sorghum and its Manufacture into Sugar and Molasses. It must embrace within 16 Octavo pages or less, the most comprehensive yet simple directions necessary to enable any of our subscribers to grow this valuable product and engage in its manufacture to such an extent as may come within their own desires and means—a simple compendium of details that all may understand and put in practice without great expense or unnecessary trouble.

We make this offer without regard to the expense, as an evidence of our interest in the prosperity of our subscribers and in the development of this new product—so important in the present state of affairs to the West.

All who desire to compete for the above valuable Premium (and all who are posted know the great reputation of the Singer Machine) must send their Essays addressed to **NORMAN J. COLMAN**, the Editor, on or before the first day of December next.

RENEW! YOUR SUBSCRIPTIONS.

Our readers will please bear in mind that we send the **FARMER** to subscribers only for the time they have paid for it. Most of our subscriptions will expire with our next number, and in no case will we send the "Farmer" for a longer time to those whose subscriptions then expire unless they are renewed. We make this statement now, so that there may be no misunderstanding. Our readers can form Clubs now, at any time, as those who subscribe will get the remaining numbers of the year. Get all your neighbors to join you. Surely they will not object to paying Seventy-five cents for the "Valley Farmer" and a valuable Treatise on Sorghum Culture and Manufacture. The long evenings are here, and they can be pleasantly and profitably occupied in gathering information on agricultural, horticultural and stock matters. Form the Clubs at once.

Dr. Geo. H. Dadd, Sen.

This eminent **VETERINARY Surgeon** has permanently located in Chicago, with a prospect of establishing a Veterinary School there. Of course, a surgeon of his skill would secure a large practice anywhere.

His Son, **Geo. H. DADD, JUN.**, remains in Saint Louis, and will continue the practice of Veterinary Surgery in the place of his father. He has been regularly educated to the Veterinary profession, and will doubtless secure a large practice. His office may be found at the Livery Stable of Messrs. Glasgow & Harkness, on the south side of Locust, between Fifth and Sixth Streets, St. Louis.

Samuel Lea, of Leasburg, Mo., wishes to purchase a first-rate Milch Cow and a good Ram of blooded stock. Those having them to sell will address him as above.

A Word to Agents and Subscribers.

We call the attention of our subscribers and those engaged in getting up Clubs to the outside page of the cover of the **FARMER**. It contains a List of the **PREMIUMS** given to those who now subscribe and to those persons who get up Clubs. Every subscriber will get a **PREMIUM**, which of itself is worth much more than the subscription price of the **FARMER**—a practical work on **SORGHUM** growing and its manufacture. Is there a farmer unwilling to invest a dollar—we think not—at least no intelligent farmer.

POSTAGE STAMPS.

We wish, in this connection, to say, that money if carefully inclosed will come as safely as **STAMPS**—we prefer notes on good banks always rather than postage stamps. Of course, the new postage currency will form a convenient remittance for small amounts.

Lloyd's Maps—More Premiums.

We call the attention of our readers to the Advertisement of these magnificent Maps which is on the cover of this month's "Farmer." We have examined the Map of the United States, which shows every Railroad and Station finished to June 1862, and even Village Post Offices. It is well worth the price for the States of Missouri and Illinois, and supplies a vacuum long felt. No farmer's house should lack a copy.—Fifty cents is all the charge for a copy of this splendid work of art. We have also had the pleasure of examining the Map of the Lower Mississippi from St. Louis to the Gulf of Mexico, exhibiting the Plantations, Cities, Towns, Landings, Sand Bars, Islands, Bluffs, Fortifications, &c. Only \$1 per copy. They are the most valuable Geographical productions of modern times that we have had the privilege of inspecting, and to the enterprising publishers the American public are largely indebted. And in conclusion we offer to send to any of our subscribers who will exert themselves in procuring us Clubs, one or both of these Maps in addition to a copy of the "Farmer" and Essay on Sorghum, instead of the Agricultural Books we have offered, should they prefer it.

RHODES' SUPER-PHOSPHATE.—We acknowledge the receipt of a small quantity of this Fertilizer. The following letter will explain itself:

N. J. Colman—Dear Sir: We send you a package of Rhodes' Super-Phosphate, the Standard Manure for Soluble Phosphoric Acid, accompanied with Circulars giving analyses of the same and certificates of those who have used it, showing the effect on different crops. It is coming into extensive use among the Eastern farmers, and may be found an available and profitable manure in the West, particularly for grass and tobacco. It is for sale by us in any quantity.

Respectfully, **PLANT & BRO.**

ECONOMY OF COAL OIL.—This comparatively new illumination, is becoming the favorite light of the people. It is by far the cheapest light to read or work by, more cleanly than any other fluid, pleasanter to the eyes, and harmless. The great demand for it, attests to its cheapness, and a large foreign trade has sprung up for it.

We notice, in this connection, that our friend **Curtiss** at No. 7 South Fifth St., who keeps the guaranteed article, has a superior Lantern, which burns this oil without a chimney. He also has a neat contrivance to put on the lamps, by which you may boil tea or coffee, cook food, &c., at a trifling expense. A Nursery lamp on the same plan is a capital affair. Those who want a handsome candle, as white as snow, will find the Paraffine Candle, made from the products of this oil, to be a beautiful ornament and light.

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FRUIT AND ORNAMENTAL TREES.

Evergreens, Grapes, Shrubs and Roses,

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